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UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

JAMES MCCRORY; TRACY MILES;
BRENDA SMITH-WATSON;
PATRICIA TAYLOR; SHONA
THOMAS; TYLER BAKER; DENEEN
BROWN; JONATHAN CARANO;
LATRICIA FORD; BRAD HOSCHAR
MARIE HUDSON; HANNAH JONES;
CARA TAYLOR LONG; RICHARD
TOPA; JORDAN TRIBBLE; ANITA
VICTORY; THERESA WOLLE,

Plaintiffs,

v.

HYUNDAI AMERICA, INC.;
HYUNDAI MOTOR COMPANY;
HYUNDAI MOTOR GROUP; KIA
AMERICA, INC.; KIA
CORPORATION; and HYUNDAI-
MOBIS CO., LTD.,

Defendants.

CASE NO. 8:23-cv-01196

CLASS ACTION COMPLAINT

DEMAND FOR JURY TRIAL

(VOLUME I)

CLASS ACTION COMPLAINT

I. INTRODUCTION

1. Approximately two months ago, on April 27, 2023, the National Highway Traffic Administration (“NHTSA”) informed ARC Automotive, Inc. (“ARC”) that NHTSA had “tentatively concluded that *a defect related to motor vehicle safety exists* in the frontal driver and passenger air bag inflators under investigation that were produced before installation of borescopes on all toroidal inflator manufacturing lines in January 2018 (emphasis added).¹ NHTSA demanded that ARC recall the defective inflators (“Defective Inflators”) and “issue a Part 573 Recall Report addressing the safety defect.”² NHTSA noted that ARC’s 67 million Defective Inflators are contained in the driver and passenger frontal airbag modules of vehicles manufactured by at least 12 major vehicle manufacturers.³ Most of these vehicles likely are on the road today, and tens of millions of people are at risk of serious injury or death. The vehicles affected by the inflator defect (“Inflator Defect”) are the Class Vehicles in this case, and the owners and lessees of those vehicles are Plaintiffs and Class Members.

2. NHTSA described the defect as the presence of loose weld “slag” or “flash” in the interior of the Defective Inflators.⁴ This loose piece of metal flash can become dislodged during a crash and block the Defective Inflators’ single ventilation port. As NHTSA found, “ARC’s inflator design is such that during a triggered deployment, the stored gas, excited by the propellant, has a single path through the exit orifice to exit the inflator and fill the air bag cushion.”⁵ If a piece of loose weld flash blocks the ventilation

¹ Letter from S. Ridella, Director, Office of Defects Investigation, NHTSA, to S. Gold, Vice President – Product Integrity, ARC (Apr. 27, 2023), attached as Exhibit A.

² *Id.*

³ *Id.* at 1-2.

⁴ *Id.* at 2. Within the industry the material at the seam of two parts joined by friction welding is commonly referred to as “flash,” which is the term Plaintiffs use herein instead of “slag.” See “Whiteboard Wednesday: Friction Welding Flash,” Manufacturing Technology, Inc., available at <https://blog.mtiwelding.com/whiteboard-wednesday-friction-welding-flash>.

⁵ *Id.* at 2. *Id.* at 2.

1 exit port during deployment, the large volume of gas trying to travel from the inflator to
 2 the air bag cushion over-pressurizes the metal inflator, which causes a rupture that can
 3 result in “metal [inflator] fragments being forcefully propelled into the passenger
 4 compartment.”⁶

5 3. NHTSA concluded that the Defective Inflators “pose an unreasonable risk
 6 of death or injury,” and that “[a]n airbag inflator that ruptures when deploying in a
 7 vehicle is plainly defective.”⁷ Confirming the obvious, NHTSA determined that
 8 “[a]irbag inflators that project metal fragments into vehicle occupants, rather than
 9 properly inflating the attached air bag, create an unreasonable risk of death and injury.”⁸

10 4. ARC rejected NHTSA’s demand.⁹ Instead of recalling the Defective
 11 Inflators, ARC “strongly” disagreed with NHTSA. ARC attacked NHTSA’s authority,
 12 mischaracterized the statements in NHTSA’s detailed six-page letter as “not based on
 13 any objective technical or engineering conclusion,” despite acknowledging that NHTSA
 14 had been investigating the issue for years, and called the defect in its inflators
 15 “hypothetical” even though it had caused numerous documented ruptures, injuries, and
 16 fatalities.¹⁰

17 5. This indifference to the safety of millions of motorists stands in stark
 18 contrast to ARC’s portrayal of itself as a responsible company focused on safety, as
 19 expected of a manufacturer of airbag inflators. On its official website, ARC promises
 20 that “safety” and “integrity” are its core values. In its May 11, 2023 response letter to
 21 NHTSA, ARC repeatedly made similar claims; for example, “The safety of the motoring
 22 public is a cornerstone of our business.” This is demonstrably untrue. Not only did ARC
 23 defy NHTSA and refuse to recall its Defective Inflators, but it failed to even notify
 24

25 ⁶ *Id.*

26 ⁷ *Id.* at 4-5.

27 ⁸ *Id.* at 5.

28 ⁹ Letter from S. Gold, Vice President – Product Integrity, ARC, to S. Ridella, Director,
 Office of Defects Investigation, NHTSA (May 11, 2023), attached as Exhibit B.

¹⁰ *Id.* at 1.

1 consumers of the dangers they face or take any other action to protect the driving public.

2 6. NHTSA's conclusions followed a nearly eight-year investigation. During
3 that time, there have been at least 10 known ruptures of the Defective Inflators in
4 vehicles, including seven driver inflators and three passenger inflators. Two of those
5 ruptures resulted in driver fatalities. Additionally, numerous Defective Inflators ruptured
6 during ARC's internal testing. These ruptures led to recalls of a fraction of the Class
7 Vehicles with the defect. Those recalls are inadequate in scope because tens of millions
8 of vehicles with the Defective Inflators still have not been recalled. Between 2017 and
9 2022, for example, BMW, Ford, GM, and Volkswagen (defined *infra*) collectively
10 recalled fewer than 6,400 vehicles equipped with airbags containing Defective Inflators.

11 7. On or about May 10, 2023, after NHTSA issued its April 27, 2023, letter,
12 GM initiated a broader, yet still inadequate, recall of 994,000 of GM's "2014-2017
13 model year Buick Enclave, Chevrolet Traverse, and GMC Acadia vehicles." Contrary
14 to NHTSA's findings that there is a design defect, GM said it was recalling these
15 vehicles because of "a supplier manufacturing defect [that] may result in rupture during
16 deployment." Nonetheless, GM agreed that "[a]n inflator rupture may cause metal
17 fragments to pass through the airbag and into the vehicle interior, which may result in
18 injury or death to vehicle occupants."¹¹

19 8. On information and belief, ARC worked with others to conceal the
20 Defective Inflators for years. It had help from the "Airbag Module Defendant" (defined
21 *infra*), "Airbag Module Suppliers" (defined *infra*), and "Automaker Defendants"
22 (defined *infra*). The Airbag Module Defendant, Airbag Module Suppliers, and
23 Automaker Defendants have long known that ARC inflators are defective. The
24 Automaker Defendants designate the specifications for the airbag inflators in their
25

26 ¹¹ General Motors, LLC Part 573 Safety Recall Report, submitted May 10, 2023,
27 NHTSA Recall No. 23V-334, Manufacturer Recall No. N232404980, available at
28 <https://static.nhtsa.gov/odi/rc1/2023/RCLRPT-23V334-3594.PDF> (last accessed June 13, 2023).

1 vehicles, which forbid structural failure and state that the inflators “shall not fail.”

2 9. The Airbag Module Defendant, Airbag Module, Suppliers, and Automaker
3 Defendants develop design specifications for the ARC inflators and require that ARC
4 conduct testing and evaluations as part of the Production Part Approval Process
5 (“PPAP”), which is the process that documents ARC’s conformance to Automaker
6 Defendants’ specifications. The Airbag Module Defendant, Airbag Module Suppliers,
7 and Automaker Defendants also require testing of the ARC inflators and, if the inflator
8 does not meet the specifications, the Airbag Module Defendant, Airbag Module
9 Suppliers, and Automaker Defendants must grant an exception before the product is
10 installed and sold. If there is an inflator failure, whether during testing or in the field, the
11 Airbag Module Defendant, Airbag Module Suppliers, and Automaker Defendants
12 review all the previous design, process, and testing documents to determine the root
13 cause of the failure.

14 10. Inflators and airbag modules are manufactured in groups that are known as
15 “lots.” Prior to installing a lot of inflators or airbag modules, the Automaker Defendants
16 require that ARC perform Lot Acceptance Testing (“LAT”) on both inflators and airbag
17 modules and that they be notified of any inflator ruptures. The Automaker Defendants
18 also run their own tests on the airbag modules.¹² The Airbag Module Defendant, Airbag
19 Module Suppliers, and Automaker Defendants were made aware of multiple LAT
20 failures where the inflator ruptured during testing, as confirmed in several of the recalls.
21 The Airbag Module Defendant, Airbag Module Suppliers, and Automaker Defendants
22 were also made aware of ARC inflator ruptures in the field. Even though they knew
23 about the defect, the Automaker Defendants still chose to sell millions of vehicles with
24 Defective Inflators to Plaintiffs and the Class Members.

25
26 ¹² See, e.g., <https://static.nhtsa.gov/odi/inv/2016/INRL-EA16003-87413P.pdf> (Ford
27 requires ARC to “conduct Lot Acceptance Testing, Conformance of Production, or
28 other production part testing to ensure conformance to design and performance
requirements and/or quality control standards prior to shipping the components.”).

11. Automakers have taken a lot-based recall approach to date. In a lot-based recall, automakers identify the lot of a failed inflator and then issue a recall notice for this finite population of inflators. An automaker “assumes” the defect was caused by a lot-specific manufacturing error rather than by a fleet-wide design defect and then waits until the next failure takes place before it issues further recalls.¹³

12. NHTSA’s correspondence confirms that ARC was regularly in touch with the Airbag Module Defendant, Airbag Module Suppliers, and Automaker Defendants throughout NHTSA’s investigation of the Defective Inflators. Defendants continued to profit from the sale, service, and use of the Defective Inflators, while the Class bore the safety risk and related economic loss.

13. On May 31, 2023, NHTSA issued a Special Order to ARC (1) outlining its investigative efforts and ARC’s refusal to issue a recall, (2) requiring ARC to file answers to questions under oath, and (3) requiring ARC to produce certain documents by June 14, 2023.¹⁴ NHTSA’s Special Order seeks information that ARC has yet to provide NHTSA or its customers, including whether ARC contends that its airbag inflators are expected to occasionally experience a field rupture, the estimated number and frequency of field ruptures ARC expects to occur, and whether ARC has notified its customers that its inflators are expected to occasionally experience field ruptures.

14. On June 14, 2023, ARC responded to NHTSA’s Special Order under oath¹⁵ Among other things, ARC admitted that it “designs its inflators, manufacturing

¹³ Some automakers took a similar lot-based recall approach early in the *In re Takata Airbag Products Liability Litigation*, MDL No. 2599. Eventually all automakers defendants in that case were required to recall all vehicles with the defective inflators because NHTSA found it was a dangerous design defect that affected all vehicles with the inflators. Not coincidentally, the defective Takata inflators – like the ARC inflators here – sometimes exploded and spewed sharp metal fragments into the faces and necks of drivers and passengers when their air bags deployed in a crash.

¹⁴ Special Order Directed to ARC, *In re: EA 16-003 Air Bag Inflator Rupture* (NHTSA May 31, 2023), attached as Exhibit C.

¹⁵ ARC’s Written Response to May 31, 2023 Special Order, *In re: EA 16-003 Air Bag Inflator Rupture* (NHTSA June 14, 2023), attached as Exhibit D.

1 processes, and quality controls to operate within the manufacturing and performance
2 parameters specified by its customers,” *i.e.*, the Airbag Module Defendant, Airbag
3 Module Suppliers, and Automaker Defendants. ARC admitted that it did not have any
4 expectation that the inflators at issue “would occasionally experience a field rupture.”

5 15. ARC also admitted that it has not taken any measures to notify its customers
6 or consumers of the danger related to their inflators outside of the processes already
7 embodied by the Advance Product Quality Process (“APQP”). ARC also confirmed that
8 its customers participate in the design of the inflators and validation of the inflators in a
9 process known as the Design Failure Mode and Effects Analysis (“DFMEA”). ARC
10 confirmed that these customers required ARC to meet their own “specifications and
11 quality requirements.” The DFMEA includes a Process Failure Mode and Effects
12 Analysis (“PFMEA”), “which evaluates each process step” and ultimately subscribes a
13 Risk Priority Number (“RPN”) to the relevant failure modes. ARC’s customers have the
14 right to review or audit each of these processes and make their own determination of
15 whether the inflators are satisfactory.

16 16. ARC also confirmed that for ruptures that occur during testing, ARC
17 notified the Airbag Module Suppliers and vice versa. ARC further confirmed that it was
18 not able to estimate the number of field ruptures it expects to occur at this time.

19 17. NHTSA specifically asked ARC to state the number of inflators that it had
20 rejected due to “weld flash.” ARC confirmed that, as late as 2016, it was not checking
21 for weld flash issues with a borescope and, therefore, it does not know how many
22 inflators were rejected for this reason. ARC did provide the numbers to NHTSA for weld
23 flash rejections from August 2017 to May 31, 2023, but that information was stored on
24 a drive and submitted as confidential. Therefore, the Class does not yet have that
25 information.

26 18. These answers confirm that the defect in ARC inflators is one of design,
27 not a one-off manufacturing defect and, just as ARC, that Class Members would not
28 reasonably expect the defect to occur. They also confirm that the Airbag Module

1 Defendant, Airbag Module Suppliers, and Automaker Defendants were aware of the
 2 relevant rupture rate involved in the design process with ARC, such that they have
 3 responsibility for the defects alleged herein.

4 19. Plaintiffs seek to accomplish what ARC refuses to do, even when
 5 confronted by NHTSA. Plaintiffs seek to remove the dangerous Defective Inflators off
 6 the road and install airbags with demonstrably safe inflators in the Class Vehicles, enjoin
 7 Defendants from further jeopardizing the lives of millions of Class Members, and
 8 compensate Plaintiffs and Class Members for the economic damage they have incurred
 9 from buying cars with defective safety systems.

10 20. The Class is a nationwide class that includes “all consumers in the United
 11 States who purchased, currently own, lease, or leased a Class Vehicle that contains a
 12 driver or passenger side inflator manufactured by ARC between 2001 and 2018.”¹⁶ The
 13 Class does not include: (a) each Defendant and its board members, executive-level
 14 officers, attorneys, and immediate family members of any such persons; (b) the Court,
 15 the Court’s immediate family, and the Court staff; (c) any person who asserts a personal
 16 injury or wrongful death claim caused by the Defective Inflator; (d) Class Counsel; and
 17 (e) any person who timely and properly excludes himself or herself from the Class.

18 21. In addition, the named Plaintiffs bring claims under the laws of their
 19 respective states. These State Subclasses consist of “all consumers in their state of
 20 residence who purchased, currently own, lease, or leased a Class Vehicle that contains a
 21 driver or passenger side inflator manufactured by ARC between 2001 and 2018.” The
 22 State Subclasses do not include: (a) each Defendant and its board members, executive-
 23 level officers, attorneys, and immediate family members of any such persons; (b) the
 24 Court, the Court’s immediate family, and the Court staff; (c) any person who asserts a

25 _____
 26 ¹⁶ At this early stage and without the benefit of discovery, Plaintiffs cannot determine
 27 with certainty each vehicle by make, model, and model year equipped with the
 28 Defective Inflators but have included those about which they are reasonably confident.
 Plaintiffs may amend their pleadings to add vehicles if they are identified in the
 discovery process.

1 personal injury or wrongful death claim caused by the Defective Inflator; (d) Class
2 Counsel; and (e) any person who timely and properly excludes himself or herself from
3 the Class.

4 22. Consistent with Federal Rule of Civil Procedure 23(c)(5), which sanctions
5 the creation of subclasses “[w]hen appropriate,” Plaintiffs reserve their right to modify
6 the Class and the State Subclasses as discovery progresses and at the class certification
7 stage.

8 23. As NHTSA explained, instead of protecting Class Members during a crash,
9 the Defective Inflators may explode, sending shrapnel into the passenger compartment
10 and injuring or killing occupants. Class Members were not aware of the defect when
11 they purchased or leased their Class Vehicles. Therefore, they overpaid for their Class
12 Vehicles. The Defective Inflators also significantly diminished, and will continue to
13 diminish, the value of the Class Vehicles. Worse yet, Class Members now face Hobson’s
14 choice: continue to drive their Class Vehicles and face the risk of catastrophic injury or
15 replace the airbag modules containing Defective Inflators out of their own pockets.

16 24. Plaintiffs, on behalf of themselves and all others similarly situated, assert
17 nationwide and state claims and seek all available damages, penalties, and punitive
18 damages for Defendants’ egregious conduct. Plaintiffs also seek declaratory and
19 injunctive relief, including a Court order directing Defendants to expeditiously repair
20 the Class Vehicles with demonstrably safe airbags.

21 **II. PARTIES, JURISDICTION, AND VENUE**

22 **A. The Defendants**

23 25. At all relevant times, as alleged below, each Defendant herein was
24 authorized to (and did) conduct business within California and each state and territory
25 of the United States and supplied its products to Class Members in said states and
26 territories. Each Defendant received financial benefit and profits as a result of designing,
27 manufacturing, testing, marketing, distributing, importing, and selling Defective
28 Inflators (or Class Vehicles with installed Defective Inflators), either directly or through

1 a subsidiary or agent, within California and each state and territory of the United States.

2 26. Defendant Hyundai Motor Group (“HMG”) is a general partnership
3 composed of, *inter alia*, Hyundai Motor Company, Kia Corporation, and Hyundai Mobis
4 Co., Ltd. (*see infra*). HMG is incorporated under the laws of South Korea and maintains
5 its principal place of business in South Korea. Under the name of HMG, the “Hyundai-
6 Kia Defendants,” discussed below, frequently act jointly to advance the interest of all of
7 selling cars in the United States.¹⁷

8 27. Defendant Hyundai America Inc. (“Hyundai America”) is incorporated in
9 California and has its principal place of business at 10550 Talbert Avenue, Fountain
10 Valley, California 92728. Hyundai America manufactures, designs, and distributes new
11 vehicles under the Hyundai brand. Hyundai America also markets, leases, warrants, and
12 oversees regulatory compliance and warranty servicing of Hyundai brand vehicles
13 throughout the United States, including from its headquarters in California. Hyundai
14 America can be served through its registered agent for service, Jae Won Kim of 101 W
15 Mulberry Boulevard, Suite 130, Pooler, Georgia 31407.

16 28. Defendant Hyundai Motor Company is incorporated under the laws of
17 South Korea and maintains its principal place of business in South Korea.

18 29. HMG is incorporated under the laws of South Korea and maintains its
19 principal place of business in South Korea.

20 30. Defendant Kia America, Inc. (“Kia America”) is incorporated and
21 headquartered in California. Its principal place of business is located at 111 Peters
22 Canyon Road, Irvine, California. Kia America manufactures and distributes new
23 vehicles under the Kia brand. Kia America also markets, leases, warrants, and oversees
24 regulatory compliance and warranty servicing of Kia-brand vehicles through a network
25

26 ¹⁷ See [https://www.autonews.com/article/20171214/RETAIL03/312159994/hyundai-](https://www.autonews.com/article/20171214/RETAIL03/312159994/hyundai-ad-firm-buys-kia-s-longtime-u-s-agency)
27 [ad-firm-buys-kia-s-longtime-u-s-agency](https://www.autonews.com/article/20171214/RETAIL03/312159994/hyundai-ad-firm-buys-kia-s-longtime-u-s-agency) (noting ad agency merge in the United States
28 that ultimately would jointly promote Kia and Hyundai automobiles by, for example,
running super bowl ads).

1 of over 700 dealers throughout the United States from its headquarters in California and
2 into all of the United States. Kia America can be served through its registered agent, The
3 Corporation Company, 106 Colony Park Drive Ste. 800-B, Cumming, Georgia 30040.

4 31. Defendant Kia Corporation is incorporated under the laws of South Korea
5 and maintains its principal place of business in Seoul, South Korea. It is South Korea's
6 second largest automobile manufacturer, after its sister company, Hyundai Motor
7 Company.

8 32. Kia America is a subsidiary of Kia Corporation, which is a part of Hyundai
9 Motor Group. Hyundai Motor Company, Hyundai America's parent company, is the
10 largest investor in Kia Corporation. On its official websites and in press releases,
11 Hyundai Motor Group has referred to the companies as the "Hyundai Kia Automotive
12 Group," and lists their United States manufacturing, research, and sales facilities as part
13 of that group. Collectively, all Hyundai and Kia entities are referred to as "Automaker
14 Defendants."

15 33. Defendant Hyundai Mobis Co., Ltd. is incorporated under the laws of South
16 Korea and maintains its principal place of business in South Korea. Hyundai Mobis is
17 an Airbag Module supplier that sells airbags and occupant restraint system components
18 for inclusion in automobiles sold and distributed in the United States. Hyundai Mobis
19 Co., Ltd. is an affiliated company of Hyundai Motor Co., with each company owning a
20 significant portion of the other's shares. Hyundai Mobis Co., Ltd., is the sole owner of
21 Mobis Parts America, LLC, which Hyundai Mobis Co., LTD., created and operates to
22 promote its business interests within the United States. Hyundai Mobis Co., Ltd. is
23 referred to as the "Airbag Module Defendant."

24 34. Collectively, all Hyundai and Kia entities are referred to as "Defendants."

25 35. At all times alleged herein, Defendants were authorized to conduct and did
26 engage in substantial business within each state and territory of the United States and
27 supplied products within them, including the state of California, such that they should
28 anticipate being haled into Court there. On information and belief, Defendants maintain

1 contractual relationships with ARC and/or the Airbag Module Suppliers to purchase
 2 component parts with the intent they be installed and sold in Class Vehicles, including
 3 vehicles in California, sold through a network of dealerships in California and
 4 throughout the United States. Thus, Defendants have afforded themselves the protection
 5 of the laws of California. Defendants also committed the tortious acts alleged in this
 6 Complaint in whole or in part in the states of California, Mississippi, Alabama, Virginia,
 7 Illinois, Vermont, North Carolina, Michigan, Pennsylvania, Iowa, Arkansas, Tennessee,
 8 New York, and Georgia by virtue of manufacturing, marketing, distributing, and selling
 9 their vehicles in those states to consumers in those states.

10 36. Defendants deliver their products into the stream of commerce with the
 11 expectation that they will be purchased by consumers in all of the United States,
 12 purposefully avail themselves of the laws of each state and territory of the United States,
 13 and receive financial benefit and profits as a result of designing, manufacturing, testing,
 14 marketing, distributing, storing, and/or selling the Class Vehicles, either directly or
 15 through subsidiaries, within each state and territory of the United States. As such, the
 16 claims in this case arise out of or relate to Defendants' contacts with California.

17 37. Therefore, general and specific jurisdiction is proper under the Due Process
 18 Clauses of the Fifth and Fourteenth Amendments to the Constitution of the United States
 19 of America, and the California Long Arm Statue, Cal. Code Civ. P. § 410.10. This Court
 20 may exercise general and specific personal jurisdiction over Defendants because such
 21 jurisdiction is proper in the Central District of California.

22 **B. Relevant Third Parties**

23 **1. ARC**

24 38. ARC is a Delaware corporation, headquartered at 1729 Midpark Road,
 25 Suite 100, Knoxville, Tennessee 37921. It has manufacturing facilities in Morgantown,
 26 Kentucky, and Hartsville, Tennessee, among others, around the United States and the
 27 world. ARC manufactures a full complement of airbag inflators and related parts. ARC's
 28 factory in Knoxville, Tennessee, is one of the three American factories maintained by

1 ARC. This factory assembles and tests ARC products for distribution around the country
2 and Tennessee, including some of the Defective Inflators at issue in this case.

3 2. The “Airbag Module Suppliers”

4 39. Autoliv, Inc. is incorporated in Delaware and maintains its principal place
5 of business in Sweden. Autoliv, Inc. created, operates, and substantially controls Autoliv
6 Asp, Inc., which develops, designs, tests, markets, promotes, and distributes Autoliv-
7 brand automotive component parts and passive safety systems, including the airbag
8 modules at issue in this lawsuit, throughout the United States, including Tennessee.
9 Although Autoliv, Inc., is headquartered in Sweden, it is a publicly traded company
10 listed on the New York Stock Exchange and publicly represents that its “corporate
11 governance is subject primarily U.S. federal and state regulations . . .” This is the
12 Company’s “primary listing,” meaning that it has chosen to subject itself to the corporate
13 governance laws of the United States.

14 40. Autoliv Asp, Inc. was formed under the laws of Indiana and maintains its
15 principal places of business in Ogden, Utah, and Auburn Hills, Michigan. Autoliv Asp,
16 Inc. operates five manufacturing facilities in Utah. The Utah and Michigan facilities both
17 design, manufacture, test, market, and sell airbag modules and components, including
18 inflators and propellant. Autoliv Asp, Inc. also operates two Autoliv Technical Centers
19 in the United States that help develop, design, and test airbag modules and their
20 components for various vehicle platforms. Autoliv, Inc. and Autoliv Asp, Inc. are
21 collectively referred to as the “Autoliv.”

22 41. Joyson Safety Systems (“Joyson”) is incorporated under the laws of
23 Delaware and maintains its principal place of business in Michigan and has an office in
24 Sunnyvale, California. Joyson develops, designs, tests, markets, promotes, and
25 manufactures airbag modules and inflators for, and distributes and sells them to, the
26 Defendants, including the airbag modules at issue in this lawsuit, throughout the United
27 States, including California. Joyson and its predecessor companies, including Key
28 Safety Systems, Inc., have repeatedly used the Port of Savannah, Georgia, to transport

1 and facilitate the distribution of its component parts including airbag inflators and airbag
2 inflator modules.

3 42. Toyoda Gosei North America, Inc. (“Toyoda Gosei”) is incorporated under
4 the laws of Michigan and has its principal place of business in Michigan. Toyoda Gosei
5 incorporates ARC inflators into airbag modules for use in vehicles manufactured by one
6 or more of the Defendants.

7 43. ZF are ZF Active Safety and Electronics US LLC; ZF Passive Safety
8 Systems US Inc.; ZF Automotive US Inc.; ZF TRW Automotive Holdings Corp.; and
9 ZF Friedrichshafen AG. Plaintiff refers to these parties collectively as “ZF.” Plaintiff
10 refers to ZF Active Safety and Electronics US LLC, ZF Passive Safety Systems US Inc.,
11 ZF Automotive US Inc., ZF TRW Automotive Holdings Corp. as the “Domestic ZF
12 Parties.”

13 44. ZF Active Safety and Electronics US LLC (referred to herein as “ZF
14 Electronics USA”) is a Delaware LLC headquartered in Michigan. It formerly operated
15 under the name “TRW Automotive U.S. LLC.” ZF Electronics USA designed,
16 manufactured, and sold some airbag modules that incorporated ARC’s Defective
17 Inflators.

18 45. ZF Passive Safety Systems US Inc. (referred to herein as “ZF Passive
19 Safety USA”) is a Delaware corporation headquartered in Michigan. It previously
20 operated under the name “TRW Vehicle Safety Systems, Inc.” ZF Passive Safety USA
21 worked closely with ZF Electronics USA to design the airbag modules that incorporate
22 ARC’s Defective Inflators. During the relevant period, it issued paychecks to the vast
23 majority of the ZF engineers and technical specialists who were responsible for the core
24 design of the relevant airbag modules, the adaptation of those modules to the various
25 makes and models of the Class Vehicles, and the investigation of Defective Inflators.

26 46. ZF Automotive US Inc. (referred to herein as “ZF Automotive USA”) is a
27 Delaware corporation headquartered in Michigan and the direct parent and 100% owner
28 of ZF Passive Safety USA and ZF Active Safety and Electronics US LLC. It formerly

1 operated under the name “TRW Automotive Inc.” It shares responsibility with ZF
2 Electronics USA for the design and manufacture of the airbag modules at issue in this
3 case.

4 **B. The Plaintiffs**

5 47. Plaintiff James McCrory resides in Laurel, Mississippi. Plaintiff owns a
6 2017 Hyundai Elantra, which he purchased new on or about July 2017 from Eastern
7 Shore Hyundai in Alabama, an authorized Hyundai dealership. Plaintiff’s vehicle was
8 covered by a written warranty. Plaintiff purchased his Class Vehicle without knowledge
9 of the Inflator Defect. Through his exposure to Hyundai’s advertisements, promotional
10 materials and other public statements, Plaintiff was aware of Hyundai’s uniform and
11 pervasive marketing message that its vehicles are safe and dependable, which was
12 material to his decision to purchase the Class Vehicle. When Plaintiff acquired the Class
13 Vehicle, he believed, based on Hyundai’s uniform and pervasive marketing message,
14 that he would be in a safe and dependable vehicle, one that is safer than a vehicle that is
15 not marketed as safe and dependable. At no point before Plaintiff purchased his Class
16 Vehicle did Hyundai disclose that it was not safe or dependable, or that it was equipped
17 with an airbag containing a defective ARC inflator. Had Defendants disclosed their
18 knowledge of the defect, Plaintiff would have heard, seen, and been aware of it. Plaintiff
19 had no way of knowing when he purchased his Class Vehicle that it contained airbags
20 with defective ARC inflators and only recently learned of the presence of the Inflator
21 Defect in his Class Vehicle in 2023, shortly before commencing his lawsuit. To
22 Plaintiff’s knowledge, the airbags with the defective ARC inflators in his Class Vehicle
23 have not been repaired or replaced. The value of Plaintiff’s vehicle has been diminished
24 as a result of the Inflator Defect. If Plaintiff had known about the Inflator Defect, he
25 either would have not purchased the vehicle, or would have paid less to do so. Plaintiff
26 would purchase a vehicle from Hyundai in the future if Defendants’ representations
27 about the vehicle, including its safety and durability, were accurate.

28 48. Plaintiff Tracy Miles resides in Cordora, Alabama. Plaintiff owns a 2013

Hyundai Elantra, which she purchased used on or about December 1, 2021 for approximately \$7,000 from Waldrop Motors in Jasper, Alabama. Plaintiff's 2013 Hyundai Elantra was covered by a written warranty. Plaintiff her Class Vehicle without knowledge of the Inflator Defect. Through her exposure to Hyundai advertisements, promotional materials and other public statements, Plaintiff was aware of Hyundai's uniform and pervasive marketing message that its vehicles are safe and dependable, which was material to her decision to purchase the Class Vehicle. When Plaintiff acquired the Class Vehicle, she believed, based on Hyundai's uniform and pervasive marketing message, that she would be in a safe and dependable vehicle, one that is safer than a vehicle that is not marketed as safe and dependable. At no point before Plaintiff purchased her Class Vehicle did Hyundai disclose that it was not safe or dependable, or that it was equipped with an airbag containing a defective ARC inflator. Had Defendants disclosed their knowledge of the Inflator Defect, Plaintiff would have heard, seen, and been aware of it. Plaintiff had no way of knowing when she purchased her Class Vehicle that it contained airbags with defective ARC inflators and only recently learned of the presence of the Inflator Defect in their Class Vehicle in May 2023, shortly before commencing their lawsuit. To Plaintiff's knowledge, the airbags with the defective ARC inflators in her Class Vehicle have not been repaired or replaced. The value of Plaintiff's vehicle has been diminished as a result of the Inflator Defect. If Plaintiff had known about the Inflator Defect, she either would have not purchased the vehicle, or would have paid less to do so. Plaintiff Miles would purchase a vehicle from Hyundai in the future if Defendants' representations about the vehicle, including its safety and durability, were accurate.

49. Plaintiff Brenda Smith-Watson resides in Chesapeake, Virginia. Plaintiff owns a 2013 Hyundai Elantra, which she purchased new on or about January 16, 2013 from Hall Hyundai in Chesapeake, VA, an authorized Hyundai dealership. Plaintiff's 2013 Hyundai Elantra was covered by a written warranty. Plaintiff purchased her Class Vehicle without knowledge of the Inflator Defect. Through her exposure to Hyundai's

1 advertisements, promotional materials and other public statements, Plaintiff was aware
 2 of Hyundai's uniform and pervasive marketing message that its vehicles are safe and
 3 dependable, which was material to her decision to purchase the Class Vehicle. When
 4 Plaintiff acquired the Class Vehicle, she believed, based on Hyundai's uniform and
 5 pervasive marketing message, that she would be in a safe and dependable vehicle, one
 6 that is safer than a vehicle that is not marketed as safe and dependable. At no point before
 7 Plaintiff purchased her Class Vehicle did Hyundai disclose that it was not safe or
 8 dependable, or that it was equipped with an airbag containing a defective ARC inflator.
 9 Had Defendants disclosed their knowledge of the Inflator Defect, Plaintiff would have
 10 heard, seen, and been aware of it. Plaintiff had no way of knowing when she purchased
 11 her Class Vehicle that it contained airbags with defective ARC inflators and only
 12 recently learned of the presence of the Inflator Defect in her Class Vehicle in 2023,
 13 shortly before commencing her lawsuit. To Plaintiff's knowledge, the airbags with the
 14 defective ARC inflators in her Class Vehicle have not been repaired or replaced. The
 15 value of Plaintiff's vehicle has been diminished as a result of the Inflator Defect. If
 16 Plaintiff had known about the Inflator Defect, she either would have not purchased the
 17 vehicle, or would have paid less to do so. Plaintiff Brenda Smith-Watson would purchase
 18 a vehicle from Hyundai in the future if Defendants' representations about the vehicle,
 19 including its safety and durability, were accurate.

20 50. Plaintiff Patricia Taylor resides in Cherokee, Alabama. Plaintiff owns a
 21 2010 Hyundai Elantra, which she purchased used on or about April 1, 2012 for
 22 approximately \$22,000 from Superior Hyundai in Anniston, Alabama, an authorized
 23 Hyundai dealership. Plaintiff's 2010 Hyundai Elantra was covered by a written
 24 warranty. Plaintiff her Class Vehicle without knowledge of the Inflator Defect. Through
 25 her exposure to Hyundai advertisements, promotional materials and other public
 26 statements, Plaintiff was aware of Hyundai's uniform and pervasive marketing message
 27 that its vehicles are safe and dependable, which was material to her decision to purchase
 28 the Class Vehicle. When Plaintiff acquired the Class Vehicle, she believed, based on

Hyundai's uniform and pervasive marketing message, that she would be in a safe and dependable vehicle, one that is safer than a vehicle that is not marketed as safe and dependable. At no point before Plaintiff purchased her Class Vehicle did Hyundai disclose that it was not safe or dependable, or that it was equipped with an airbag containing a Defective Inflator. Had Defendants disclosed their knowledge of the Inflator Defect, Plaintiff would have heard, seen, and been aware of it. Plaintiff had no way of knowing when she purchased her Class Vehicle that it contained an airbag with a Defective Inflator and only recently learned of the presence of the Inflator Defect in their Class Vehicle in May 2023, shortly before commencing their lawsuit. To Plaintiff's knowledge, the airbags with the Defective Inflators in her Class Vehicle have not been repaired or replaced. The value of Plaintiff's Class Vehicle has been diminished as a result of the Inflator Defect. If Plaintiff had known about the Inflator Defect, she either would have not purchased the Class Vehicle, or would have paid less to do so. Plaintiff Taylor would purchase a vehicle from Hyundai in the future if Defendants' representations about the vehicle, including its safety and durability, were accurate.

51. Plaintiff Shona Thomas resides in Maywood, Illinois. Plaintiff owns a 2012 Hyundai Elantra, which she purchased new on or about June 2012 from Happy Hyundai in Oak Lawn, Illinois, an authorized Hyundai dealership. Plaintiff's Hyundai Elantra was covered by a written warranty. Plaintiff purchased her Class Vehicle without knowledge of the Inflator Defect. Through her exposure to Hyundai's advertisements, promotional materials and other public statements, Plaintiff was aware of Hyundai's uniform and pervasive marketing message that its vehicles are safe and dependable, which was material to her decision to purchase the Class Vehicle. When Plaintiff acquired the Class Vehicle, she believed, based on Hyundai uniform and pervasive marketing message, that she would be in a safe and dependable vehicle, one that is safer than a vehicle that is not marketed as safe and dependable. At no point before Plaintiff purchased her Class Vehicle did Hyundai disclose that it was not safe or dependable, or that it was equipped with an airbag containing a defective ARC inflator. Had Defendants

disclosed their knowledge of the Inflator Defect, Plaintiff would have heard, seen, and been aware of it. Plaintiff had no way of knowing when she purchased her Class Vehicle that it contained airbags with defective ARC inflators and only recently learned of the presence of the Inflator Defect in her Class Vehicle in 2022, shortly before commencing her lawsuit. To Plaintiff's knowledge, the airbags with the defective ARC inflators in her Class Vehicle have not been repaired or replaced. The value of Plaintiff's vehicle has been diminished as a result of the Inflator Defect. If Plaintiff had known about the Inflator Defect, she either would have not purchased the vehicle, or would have paid less to do so. Plaintiff Shona Thomas would purchase a vehicle from Hyundai in the future if Defendants' representations about the vehicle, including its safety and durability, were accurate.

52. Plaintiff Tyler Baker resides in Underhill, Vermont. Plaintiff owns a 2015 Kia Forte, which he purchased used on or about October 27, 2020 for approximately \$10,500 from Berlin City Kia of Vermont in Williston, Vermont, an authorized Kia dealership. Plaintiff's 2015 Kia Forte was covered by a written warranty. Through his exposure to Kia's advertisements, promotional materials and other public statements, Plaintiff was aware of Kia's uniform and pervasive marketing message that its vehicles are safe and dependable, which was material to his decision to purchase the Class Vehicle. When Plaintiff acquired the Class Vehicle, he believed, based on Kia's uniform and pervasive marketing message, that he would be in a safe and dependable vehicle, one that is safer than a vehicle that is not marketed as safe and dependable. At no point before Plaintiff purchased his Class Vehicle did Kia disclose that it was not safe or dependable, or that it was equipped with an airbag containing a defective ARC inflator. Had Defendants disclosed their knowledge of the Inflator Defect, Plaintiff would have heard, seen, and been aware of it. Plaintiff had no way of knowing when they purchased their Class Vehicle that it contained the airbags with defective ARC inflators and only recently learned of the presence of the Inflator Defect in their Class Vehicle May 2023, shortly before commencing their lawsuit. To Plaintiff's knowledge, the airbags with the

1 defective ARC inflators in his Class Vehicle have not been repaired or replaced. The
 2 value of Plaintiff's vehicle has been diminished as a result of the Inflator Defect. If
 3 Plaintiff had known about the Inflator Defect, he either would have not purchased the
 4 vehicle, or would have paid less to do so. Plaintiff Baker would purchase a vehicle from
 5 Kia in the future if Defendants' representations about the vehicle, including safety and
 6 durability, were accurate.

7 53. Plaintiff Deneen Brown resides in Advance, North Carolina. Plaintiff owns
 8 a 2014 Kia Forte LX, which she purchased new in 2013 from Randy Marion Kia in
 9 Salisbury, North Carolina, an authorized Kia dealership. Plaintiff's Class Vehicle was
 10 covered by a written warranty. Plaintiff purchased her Class Vehicle without knowledge
 11 of the Inflator Defect. Through her exposure to Kia's advertisements, promotional
 12 materials and other public statements, Plaintiff was aware of Kia's uniform and
 13 pervasive marketing message that its vehicles are safe and dependable, which was
 14 material to her decision to purchase the Class Vehicle. When Plaintiff acquired the Class
 15 Vehicle, she believed, based on Kia's uniform and pervasive marketing message, that
 16 she would be in a safe and dependable vehicle, one that is safer than a vehicle that is not
 17 marketed as safe and dependable. At no point before Plaintiff purchased her Class
 18 Vehicle did Kia disclose that it was not safe or dependable, or that it was equipped with
 19 an airbag containing a Defective Inflator. Had Defendants disclosed their knowledge of
 20 the defect, Plaintiff would have heard, seen, and been aware of it. Plaintiff had no way
 21 of knowing when she purchased her Class Vehicle that it contained an airbag with a
 22 Defective Inflator and only recently learned of the presence of the Inflator Defect in her
 23 Class Vehicle in 2023, shortly before commencing her lawsuit. To Plaintiff's
 24 knowledge, the airbags with the Defective Inflators in her Class Vehicle have not been
 25 repaired or replaced. The value of Plaintiff's Class Vehicle has been diminished as a
 26 result of the Inflator Defect. If Plaintiff had known about the Inflator Defect, she either
 27 would have not purchased the Class Vehicle, or would have paid less to do so. Plaintiff
 28 would purchase a vehicle from Kia in the future if Defendants' representations about the

1 vehicle, including its safety and durability, were accurate.

2 54. Plaintiff Jonathan M. Carano resides in Canton, Michigan. Plaintiff owns a
3 2010 Kia Rio, which he purchased for approximately \$10,000 used in 2013 from Village
4 Ford in Dearborn, Michigan. Plaintiff's Class Vehicle was covered by a written
5 warranty. Plaintiff purchased his Class Vehicle without knowledge of the Inflator
6 Defect. Through his exposure to Kia's advertisements, promotional materials and other
7 public statements, Plaintiff was aware of Kia's uniform and pervasive marketing
8 message that its vehicles are safe and dependable, which was material to his decision to
9 purchase the Class Vehicle. When Plaintiff acquired the Class Vehicle, he believed,
10 based on Kia's uniform and pervasive marketing message, that he would be in a safe and
11 dependable vehicle, one that is safer than a vehicle that is not marketed as safe and
12 dependable. At no point before Plaintiff purchased Class Vehicle did Kia disclose that
13 it was not safe or dependable, or that it was equipped with an airbag containing a
14 Defective Inflator. Had Defendants disclosed their knowledge of the defect, Plaintiff
15 would have heard, seen, and been aware of it. Plaintiff had no way of knowing when
16 purchased his Class Vehicle that it contained an airbag with a Defective Inflator and
17 only recently learned of the presence of the Inflator Defect in their Class Vehicle in
18 2023, shortly before commencing his lawsuit. To Plaintiff's knowledge, the airbag with
19 the Defective Inflator in his Class Vehicle has not been repaired or replaced. The value
20 of Plaintiff's Class Vehicle has been diminished as a result of the Inflator Defect. If
21 Plaintiff had known about the Inflator Defect, he either would have not purchased the
22 Class Vehicle, or would have paid less to do so. Plaintiff would purchase a vehicle from
23 Kia in the future if Defendants' representations about the vehicle, including its safety
24 and durability, were accurate.

25 55. Plaintiff Brad Hoschar resides in Pittsburgh, Pennsylvania. Plaintiff owns
26 a 2012 Kia Sportage, which he purchased used in 2017 from Jim Shorkey Kia in Irwin,
27 Pennsylvania, an authorized Kia dealership. Plaintiff's Class Vehicle was covered by a
28 written warranty. Plaintiff purchased his Class Vehicle without knowledge of the Inflator

1 Defect. Through his exposure to Kia's advertisements, promotional materials and other
 2 public statements, Plaintiff was aware of Kia's uniform and pervasive marketing
 3 message that its vehicles are safe and dependable, which was material to his decision to
 4 purchase the Class Vehicle. When Plaintiff acquired the Class Vehicle, he believed,
 5 based on Kia's uniform and pervasive marketing message, that he would be in a safe and
 6 dependable vehicle, one that is safer than a vehicle that is not marketed as safe and
 7 dependable. At no point before Plaintiff purchased his Class Vehicle did Kia disclose
 8 that it was not safe or dependable, or that it was equipped with an airbag containing a
 9 Defective Inflator. Had Defendants disclosed their knowledge of the defect, Plaintiff
 10 would have heard, seen, and been aware of it. Plaintiff had no way of knowing when he
 11 purchased his Class Vehicle that it contained an airbag with a Defective Inflator and
 12 only recently learned of the presence of the Inflator Defect in his Class Vehicle in 2023,
 13 shortly before commencing his lawsuit. To Plaintiff's knowledge, the airbag with the
 14 Defective Inflator in his Class Vehicle has not been repaired or replaced. The value of
 15 Plaintiff's Class Vehicle has been diminished as a result of the Inflator Defect. If
 16 Plaintiff had known about the Inflator Defect, he either would have not purchased the
 17 Class Vehicle, or would have paid less to do so. Plaintiff would purchase a vehicle from
 18 Kia in the future if Defendants' representations about the vehicle, including its safety
 19 and durability, were accurate.

20 56. Plaintiff Marie Hudson resides in Chicago, Illinois. Plaintiff owns a 2014
 21 Kia Forte, which she purchased new on or about May 31, 2014 for approximately
 22 \$25,000 from Napleton Kia River Oak in Calumet City, Illinois, an authorized Kia
 23 dealership. Plaintiff's 2014 Kia Forte was covered by a written warranty. Plaintiff
 24 purchased her Class Vehicle without knowledge of the Inflator Defect. Through her
 25 exposure to Kia's advertisements, promotional materials and other public statements,
 26 Plaintiff was aware of Kia's uniform and pervasive marketing message that its vehicles
 27 are safe and dependable, which was material to her decision to purchase the Class
 28 Vehicle. When Plaintiff acquired the Class Vehicle, she believed, based on Kia's

1 uniform and pervasive marketing message, that she would be in a safe and dependable
 2 vehicle, one that is safer than a vehicle that is not marketed as safe and dependable. At
 3 no point before Plaintiff purchased her Class Vehicle did Kia disclose that it was not
 4 safe or dependable, or that it was equipped with an airbag containing a defective ARC
 5 inflator. Had Defendants disclosed their knowledge of the Inflator Defect, Plaintiff
 6 would have heard, seen, and been aware of it. Plaintiff had no way of knowing when she
 7 purchased her Class Vehicle that it contained airbags with defective ARC inflators and
 8 only recently learned of the presence of the Inflator Defect in her Class Vehicle in 2023,
 9 shortly before commencing her lawsuit. To Plaintiff's knowledge, the airbags with the
 10 defective ARC inflators in her Class Vehicle have not been repaired or replaced. The
 11 value of Plaintiff's vehicle has been diminished as a result of the Inflator Defect. If
 12 Plaintiff had known about the Inflator Defect, she either would have not purchased the
 13 vehicle, or would have paid less to do so. Plaintiff Marie Hudson would purchase a
 14 vehicle from Kia in the future if Defendants' representations about the vehicle, including
 15 its safety and durability, were accurate.

16 57. Plaintiff Hannah Jones resides in Des Moines, Iowa. Plaintiff owns a 2011
 17 Kia Sportage, which she purchased used from Carmax in Iowa in 2014. Plaintiff's Class
 18 Vehicle was covered by a written warranty. Plaintiff purchased her Class Vehicle
 19 without knowledge of the Inflator Defect. Through her exposure to Kia's
 20 advertisements, promotional materials and other public statements, Plaintiff was aware
 21 of Kia's uniform and pervasive marketing message that its vehicles are safe and
 22 dependable, which was material to her decision to purchase the Class Vehicle. When
 23 Plaintiff acquired the Class Vehicle, she believed, based on Kia's uniform and pervasive
 24 marketing message, that she would be in a safe and dependable vehicle, one that is safer
 25 than a vehicle that is not marketed as safe and dependable. At no point before Plaintiff
 26 purchased her Class Vehicle did Kia disclose that it was not safe or dependable, or that
 27 it was equipped with an airbag containing a Defective Inflator. Had Defendants
 28 disclosed their knowledge of the defect, Plaintiff would have heard, seen, and been

1 aware of it. Plaintiff had no way of knowing when she purchased her Class Vehicle that
2 it contained an airbag with a Defective Inflator and only recently learned of the presence
3 of the Inflator Defect in her Class Vehicle in 2022, shortly before commencing her
4 lawsuit. To Plaintiff's knowledge, the airbags with the Defective Inflators in her Class
5 Vehicle have not been repaired or replaced. The value of Plaintiff's Class Vehicle has
6 been diminished as a result of the Inflator Defect. If Plaintiff had known about the
7 Inflator Defect, she either would have not purchased the Class Vehicle, or would have
8 paid less to do so. Plaintiff would purchase a vehicle from Kia in the future if
9 Defendants' representations about the vehicle, including its safety and durability, were
10 accurate.

11 58. Plaintiff Carla Taylor Long resides in Cherokee, Alabama. Plaintiff owns a
12 2014 Kia Sportage, which she purchased used on or about December 1, 2018 for
13 approximately \$15,000 from Greenway Kia of Shoals in Sheffield, Alabama, an
14 authorized Kia dealership. Plaintiff's 2014 Kia Sportage was covered by a written
15 warranty. Plaintiff purchased her Class Vehicle without knowledge of the Inflator
16 Defect. Through her exposure to Kia's advertisements, promotional materials and other
17 public statements, Plaintiff was aware of Kia's uniform and pervasive marketing
18 message that its vehicles are safe and dependable, which was material to her decision to
19 purchase the Class Vehicle. When Plaintiff acquired the Class Vehicle, she believed,
20 based on Kia's uniform and pervasive marketing message, that she would be in a safe
21 and dependable vehicle, one that is safer than a vehicle that is not marketed as safe and
22 dependable. At no point before Plaintiff purchased her Class Vehicle did Kia disclose
23 that it was not safe or dependable, or that it was equipped with an airbag containing a
24 Defective Inflator. Had Defendants disclosed their knowledge of the Inflator Defect,
25 Plaintiff would have heard, seen, and been aware of it. Plaintiff had no way of knowing
26 when she purchased her Class Vehicle that it contained an airbag with a Defective
27 Inflator and only recently learned of the presence of the Inflator Defect in their Class
28 Vehicle in May 2023, shortly before commencing their lawsuit. To Plaintiff's

1 knowledge, the airbags with the Defective Inflators in her Class Vehicle have not been
2 repaired or replaced. The value of Plaintiff's Class Vehicle has been diminished as a
3 result of the Inflator Defect. If Plaintiff had known about the Inflator Defect, she either
4 would have not purchased the Class Vehicle, or would have paid less to do so. Plaintiff
5 Long would purchase a vehicle from Kia in the future if Defendants' representations
6 about the vehicle, including its safety and durability, were accurate.

7 59. Plaintiff Richard Topa resides in Johnson City, New York. Plaintiff owns
8 a 2006 Kia Sportage, which he purchased used on or about February 26, 2017 from
9 Country Club Kia in Oneonta, New York, an authorized Kia dealership. Plaintiff's 2006
10 Kia Sportage was covered by a written warranty. Plaintiff purchased his Class Vehicle
11 without knowledge of the Inflator Defect. Through his exposure to Kia's advertisements,
12 promotional materials and other public statements, Plaintiff was aware of Kia's uniform
13 and pervasive marketing message that its vehicles are safe and dependable, which was
14 material to his decision to purchase the Class Vehicle. When Plaintiff acquired the Class
15 Vehicle, he believed, based on Kia's uniform and pervasive marketing message, that he
16 would be in a safe and dependable vehicle, one that is safer than a vehicle that is not
17 marketed as safe and dependable. At no point before Plaintiff purchased his Class
18 Vehicle did Kia disclose that it was not safe or dependable, or that it was equipped with
19 an airbag containing a defective ARC inflator. Had Defendants disclosed their
20 knowledge of the Inflator Defect, Plaintiff would have heard, seen, and been aware of
21 it. Plaintiff had no way of knowing when he purchased his Class Vehicle that it contained
22 airbags with defective ARC inflators and only recently learned of the presence of the
23 Inflator Defect in his Class Vehicle in 2022, shortly before commencing his lawsuit. To
24 Plaintiff's knowledge, the airbags with the defective ARC inflators in his Class Vehicle
25 have not been repaired or replaced. The value of Plaintiff's vehicle has been diminished
26 as a result of the Inflator Defect. If Plaintiff had known about the Inflator Defect, he
27 either would have not purchased the vehicle, or would have paid less to do so. Plaintiff
28 Richard Topa would purchase a vehicle from Kia in the future if Defendants'

1 representations about the vehicle, including its safety and durability, were accurate.

2 60. Plaintiff Jordan E. Tribble resides in Kennesaw, Georgia. Plaintiff owns a
3 2014 Kia Sportage, which she purchased used on or about September 2, 2021 for
4 approximately \$4,000 from the original owner who purchased the vehicle new from
5 Cobb County Kia, now Jim Ellis Kia of Kennesaw. Plaintiff's 2014 Kia Sportage was
6 covered by a written warranty. Plaintiff purchased her Class Vehicle without knowledge
7 of the Inflator Defect. Through her exposure to Kia's advertisements, promotional
8 materials and other public statements, Plaintiff was aware of Kia's uniform and
9 pervasive marketing message that its vehicles are safe and dependable, which was
10 material to her decision to purchase the Class Vehicle. When Plaintiff acquired the Class
11 Vehicle, she believed, based on Kia's uniform and pervasive marketing message, that
12 she would be in a safe and dependable vehicle, one that is safer than a vehicle that is not
13 marketed as safe and dependable. At no point before Plaintiff purchased her Class
14 Vehicle did Kia disclose that it was not safe or dependable, or that it was equipped with
15 an airbag containing a Defective Inflator. Had Defendants disclosed their knowledge of
16 the Inflator Defect, Plaintiff would have heard, seen, and been aware of it. Plaintiff had
17 no way of knowing when she purchased her Class Vehicle that it contained an airbag
18 with a Defective Inflator and only recently learned of the presence of the Inflator Defect
19 in their Class Vehicle in September 2022, shortly before commencing their lawsuit. To
20 Plaintiff's knowledge, the airbags with the Defective Inflators in her Class Vehicle have
21 not been repaired or replaced. The value of Plaintiff's Class Vehicle has been diminished
22 as a result of the Inflator Defect. If Plaintiff had known about the Inflator Defect, she
23 either would have not purchased the Class Vehicle, or would have paid less to do so.
24 Plaintiff Tribble would purchase a vehicle from Kia in the future if Defendants'
25 representations about the vehicle, including its safety and durability, were accurate.

26 61. Plaintiff Anita Victory resides in North Little Rock, Arkansas. Plaintiff
27 owns a 2011 Kia Sportage, which she purchased used on or about August 6, 2020 for
28 approximately \$5,000 from Macon Trading Center in North Little Rock, Arkansas.

1 Plaintiff's 2011 Kia Sportage was covered by a written warranty. Plaintiff purchased her
2 Class Vehicle without knowledge of the Inflator Defect. Through her exposure to Kia's
3 advertisements, promotional materials and other public statements, Plaintiff was aware
4 of Kia's uniform and pervasive marketing message that its vehicles are safe and
5 dependable, which was material to her decision to purchase the Class Vehicle. When
6 Plaintiff acquired the Class Vehicle, she believed, based on Kia's uniform and pervasive
7 marketing message, that she would be in a safe and dependable vehicle, one that is safer
8 than a vehicle that is not marketed as safe and dependable. At no point before Plaintiff
9 purchased her Class Vehicle did Kia disclose that it was not safe or dependable, or that
10 it was equipped with an airbag containing a Defective Inflator. Had Defendants
11 disclosed their knowledge of the Inflator Defect, Plaintiff would have heard, seen, and
12 been aware of it. Plaintiff had no way of knowing when she purchased her Class Vehicle
13 that it contained an airbag with a Defective Inflator and only recently learned of the
14 presence of the Inflator Defect in their Class Vehicle in May 2023, shortly before
15 commencing their lawsuit. To Plaintiff's knowledge, the airbags with the Defective
16 Inflators in her Class Vehicle have not been repaired or replaced. The value of Plaintiff's
17 Class Vehicle has been diminished as a result of the Inflator Defect. If Plaintiff had
18 known about the Inflator Defect, she either would have not purchased the Class Vehicle,
19 or would have paid less to do so. Plaintiff Victory would purchase a vehicle from Kia in
20 the future if Defendants' representations about the vehicle, including its safety and
21 durability, were accurate.

22 62. Plaintiff Theresa Wolle resides in Clarksville, Tennessee. Plaintiff owns a
23 2016 Kia Forte, which she purchased new on or about January 11, 2016 from Wyatt
24 Johnson Kia in Clarksville, Tennessee, an authorized Kia dealership. Plaintiff's 2016
25 Kia Forte was covered by a written warranty. Plaintiff purchased her Class Vehicle
26 without knowledge of the Inflator Defect. Through her exposure to Kia's
27 advertisements, promotional materials and other public statements, Plaintiff was aware
28 of Kia's uniform and pervasive marketing message that its vehicles are safe and

1 dependable, which was material to her decision to purchase the Class Vehicle. When
2 Plaintiff acquired the Class Vehicle, she believed, based on Kia's uniform and pervasive
3 marketing message, that she would be in a safe and dependable vehicle, one that is safer
4 than a vehicle that is not marketed as safe and dependable. At no point before Plaintiff
5 purchased her Class Vehicle did Kia disclose that it was not safe or dependable, or that
6 it was equipped with an airbag containing a Defective Inflator. Had Defendants
7 disclosed their knowledge of the Inflator Defect, Plaintiff would have heard, seen, and
8 been aware of it. Plaintiff had no way of knowing when she purchased her Class Vehicle
9 that it contained an airbag with a Defective Inflator and only recently learned of the
10 presence of the Inflator Defect in her Class Vehicle in 2023, shortly before commencing
11 her lawsuit. To Plaintiff's knowledge, the airbags with the Defective Inflators in her
12 Class Vehicle have not been repaired or replaced. The value of Plaintiff's Class Vehicle
13 has been diminished as a result of the Inflator Defect. If Plaintiff had known about the
14 Inflator Defect, she either would have not purchased the Class Vehicle, or would have
15 paid less to do so. Plaintiff Theresa Wolle would purchase a vehicle from Kia in the
16 future if Defendants' representations about the vehicle, including its safety and
17 durability, were accurate.

18 **C. Jurisdiction and Venue**

19 63. Subject matter jurisdiction is proper in this Court pursuant to the Class
20 Action Fairness Act, 28 U.S.C. § 1332(d), because members of the proposed Class are
21 citizens of states different from Defendants' home states, there are more than 100
22 putative Class Members, and the aggregate amount in controversy exceeds \$5,000,000,
23 exclusive of interest and costs. Also, this Court has supplemental jurisdiction over
24 Plaintiffs' state law claims pursuant to 28 U.S.C. § 1367.

25 64. The Court has personal jurisdiction over the Plaintiffs because they submit
26 to the jurisdiction of this Court.

27 65. Venue is proper in this District pursuant to 28 U.S.C. § 1391 (a)-(c). A
28 substantial part of the events or omissions giving rise to these claims occurred in this

District. Furthermore, venue is proper in this District because, like many other class members, significant and material aspects of the transactions relating to Plaintiffs' purchase and/or service of their Class Vehicles occurred within and were otherwise connected to this District. Certain Defendants are residents of this District under 28 U.S.C. 1391(c)(2) because they are subject to personal jurisdiction in this District.

III. FACTUAL ALLEGATIONS

A. ARC's History

66. ARC has a long history of developing pyrotechnic propellants for use in rocket motors and airbag inflators, among other products. The company was formed in 1949 under the name Atlantic Research Corporation, with the aim of developing propellants for the U.S. Department of Defense.¹⁸

67. ARC first supplied propellant for passenger-side airbag inflators in 1970 and developed its first hybrid passenger inflators as part of a joint venture with Allied Signal in 1993.¹⁹ Today, Defendant ARC is a global manufacturer that produces a full complement of inflators for automotive airbag applications (driver, side, head, knee, seat, seatbelt, and curtain).

68. ARC has factories all over the world, including in Knoxville, Morgantown, and Hartsville, Tennessee; Xi'an and Ningbo, China; and Skopje, Macedonia.²⁰

69. Of the 67 million Defective Inflators at issue in this action, ARC designed and manufactured nearly all of them. Though ARC claims that Delphi (now owned by the Autoliv Suppliers, *see supra*) manufactured 11 million of the Defective Inflators, the inflators manufactured by Delphi were likely manufactured to ARC's specifications and

¹⁸ About Us, ARC, <http://www.arcautomotive.com/about.html> (last accessed June 28, 2023).

¹⁹ *Id.*

²⁰ ARC's plant in Reynosa, Mexico, is in the process of shutting down.

1 include a label identifying both ARC and Delphi as the manufacturers.²¹

2 **B. The Airbag Supply Chain**

3 70. In the automotive industry, ARC is known as a “Tier 2 supplier,” meaning
4 it supplied the Defective Inflators, and other automotive components, to the Airbag
5 Module Suppliers. As alleged *supra*, Hyundai Mobis is named as the Airbag Module
6 Defendant. The other Airbag Module Suppliers are known as “Tier 1 suppliers” and
7 include Autoliv, Joyson, Toyota Gosei, and TRW. The Airbag Module Defendant and
8 Airbag Module Suppliers supplied completed airbag modules to automakers, including
9 Automaker Defendants, *i.e.*, major auto manufacturers and distributors, who
10 incorporated the modules into the completed Class Vehicles, which they manufactured,
11 distributed, marketed, and sold.

12 71. ARC, the Airbag Module Defendant, Airbag Module Suppliers, and
13 Automaker Defendants shared information and worked together throughout the design,
14 manufacturing, assembly and investigation process using the APQP process, in which
15 the suppliers and customers communicate during every step of design and testing.²² For
16 example, the Automaker Defendants supply the Airbag Module Defendant and Airbag
17 Module Suppliers with end product specifications of airbag modules that will fit into
18 Automaker Defendants’ vehicles as well as the ballistic and timing requirements the
19 airbag inflators must meet.²³ These specifications consist of regulatory requirements and
20 contractual performance requirements negotiated by the Defendants among each other.

21 72. After ARC develops the design for the inflator, it creates a DFMEA, which
22 evaluates the potential failure modes that could occur with the inflator, such as
23

24 ²¹ *See, e.g.*,

25 [https://www.ebay.com/itm/125918786116?epid=1022168909&hash=item1d51583244](https://www.ebay.com/itm/125918786116?epid=1022168909&hash=item1d51583244%3Ag%3AymQAAOSwFZ1kU5nz&fits=Year%3A2006%7CModel%3ASierra+1500%7CMake%3AGMC)
26 [%3Ag%3AymQAAOSwFZ1kU5nz&fits=Year%3A2006%7CModel%3ASierra+1500](https://www.ebay.com/itm/125918786116?epid=1022168909&hash=item1d51583244%3Ag%3AymQAAOSwFZ1kU5nz&fits=Year%3A2006%7CModel%3ASierra+1500%7CMake%3AGMC)
27 [%7CMake%3AGMC](https://www.ebay.com/itm/125918786116?epid=1022168909&hash=item1d51583244%3Ag%3AymQAAOSwFZ1kU5nz&fits=Year%3A2006%7CModel%3ASierra+1500%7CMake%3AGMC) (last accessed June 12, 2023).

27 ²² *In re: EA16-003 Air Bag Inflator Rupture*, ARC’s Written Response to May 31,
28 2023 Special Order, at 6.

²³ *Id.*

overpressurization caused by various issues, and the possible effects that could result from those failures, such as rupture.²⁴ The DFMEA is used to identify the possible problems that could arise with the design and to evaluate whether certain aspect should be redesigned to address the most severe failure effects.²⁵ The DFMEA ranks each failure effect by the level of severity should it occur, with 10 being the highest severity; the likelihood the failure will occur; and the ability of the design controls to detect the failure mode before it occurs.²⁶ These rankings are used to calculate a RPN that assesses the overall design risk. When the severity ranking is high and when the RPN is high, engineers must implement corrective actions to ensure the failure mode does not occur.²⁷ Once the DFMEA is completed, the supplier creates a PFMEA that uses the same criteria to evaluate each step in the process to identify issues that could arise during the manufacturing process and creates a Control Plan to minimize the chance of these manufacturing errors occurring.²⁸

73. The DFMEA, PFMEA, and Control Plan are all reviewed by the Tier 1 suppliers and the automaker customers as part of the PPAP, which requires that the supplier provide documents showing that the inflator was designed, manufactured, and tested to meet the Tier 1 and automaker requirements, prior to its approval for production. During this process, the Tier 1 and automaker participants review the RPN and inform the Tier 2 supplier if they believe the RPN is too high and requires a redesign to lower the risk.²⁹ ARC's response to NHTSA's Special Order confirms that the PPAP process was followed for the Defective Inflators.³⁰ Thus, the Defective Inflators' design and manufacture, including the use of friction welding without a process for inspecting

²⁴ *Id.*

²⁵ Potential Failure Model and Effects Analysis (FMEA), 4th ed. 2008, at PDF 24.

²⁶ *Id.* at PDF 21.

²⁷ *Id.* at PDF 66-67.

²⁸ *In re: EA16-003 Air Bag Inflator Rupture*, ARC's Written Response to May 31, 2023 Special Order, at 6.

²⁹ *Id.*

³⁰ *Id.*

1 the center support for weld flash, would have been reviewed by the Airbag Module
2 Defendant, Airbag Module Suppliers, and Automaker Defendants and approved prior to
3 their production, purchase, and installation.

4 74. When a safety or performance issue arises with an automotive part, like the
5 airbag module assembly, or one of its components, like the inflator, the Airbag Module
6 Defendant, Airbag Module Suppliers, and Automaker Defendants have the right and
7 obligation to examine design and validation testing for all relevant components. In fact,
8 on information and belief, Automaker Defendants have reserved this contractual right
9 for themselves when dealing with Tier 1 and Tier 2 suppliers.

10 75. In NHTSA's April 2023 letter to ARC and ARC's response, it is clear that
11 all Defendants in this action have been aware of and worked on the defect issues from
12 the outset. For example, ARC admits that while the Automaker Defendants are not
13 ARC's direct "customers," in this instance, some automakers have "worked directly with
14 ARC during the course of NHTSA's investigation" into the failure of the Defective
15 Inflators.

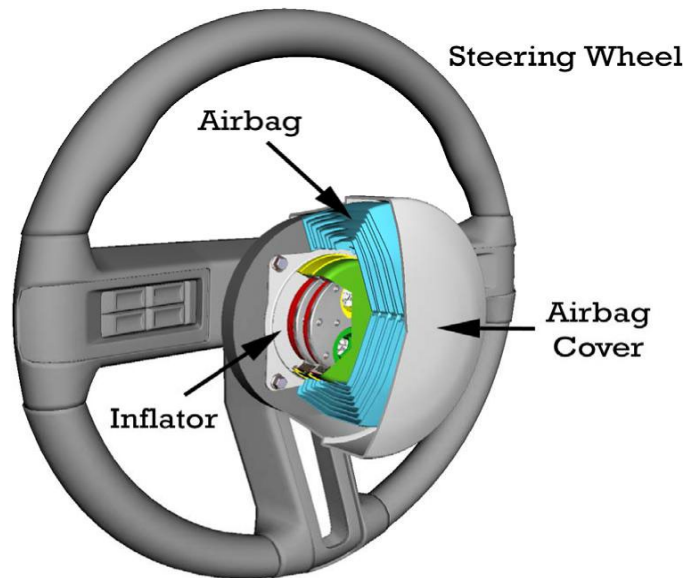
16 76. Thus, at least by the time the ARC Defective Inflators began rupturing and
17 NHTSA began investigating, the automakers had examined, or should have examined,
18 all design and manufacturing documentation related to ARC's inflators. Automaker
19 Defendants would have worked with both ARC and the Airbag Module Defendant and
20 Airbag Module Suppliers during these evaluations.

21 **C. ARC's Airbag Inflators**

22 77. Airbags are a critical safety feature in every car sold in the United States
23 since 1999. They are required by law and prevent serious injury and death during
24 accidents. To effectively shield passengers from impact with the vehicle interior, airbags
25 must deploy quickly. Thus, airbag systems use a carefully and precisely controlled
26 explosion to rapidly inflate the airbag cushion upon collision. The explosive charge is
27 typically created by a chemical propellant. The airbag inflator is a metal canister that
28 houses the chemical propellant and controls its release. In a collision, the propellant

generates gases to inflate the airbag cushion.

78. The diagram below illustrates the basic components of the driver airbag system:

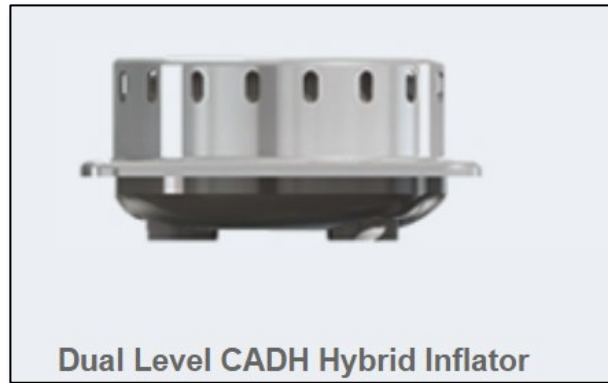


79. ARC's Defective Inflators are found in both driver and passenger side airbags and are known as hybrid inflators. According to ARC, this technology uses compressed gas "augmented by limited amounts of pyrotechnic material."³¹ Hybrid inflators combine the use of a propellant and a quantity of stored pressurized inert gas to inflate the airbag cushion. In a crash, the inflator ignitor starts the chemical propellant reaction to produce a portion of the gas while stored pressurized gas, which expands due to the heat generated during the burning of the propellant, inflates the remainder of the cushion.

80. ARC's Defective Inflators are all similarly "toroidal," or doughnut shaped, and structured for both driver and passenger side airbags. During the Class Period, ARC designated its driver hybrid toroidal inflators as CADH/DH-7 (single stage) and DCADH (dual stage). ARC designated its passenger inflators as PH7-90, PH7-120 (single stage) and PH7-120, DPH7 (dual stage). The following is an illustration of

³¹Products, ARC, <http://www.arcautomotive.com/products.html> (last accessed June 5, 2023).

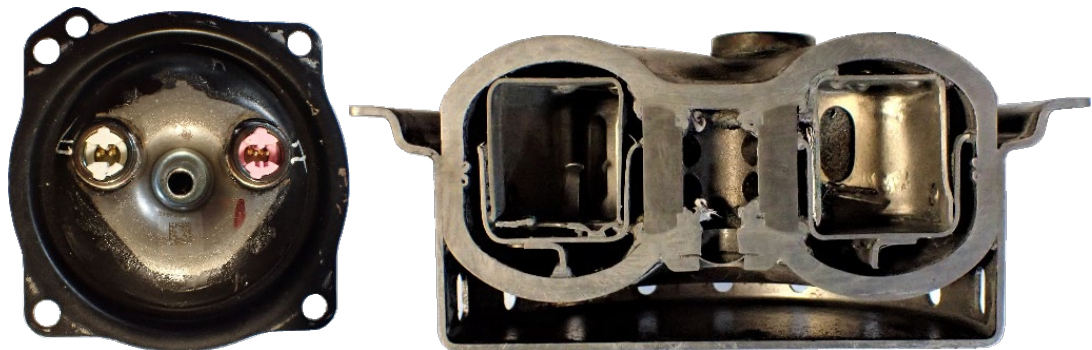
ARC's typical driver's side inflator for the DCADH model:³²



81. This design is substantially similar to a common ARC hybrid passenger side airbag inflator, the PH7 shown in the image below:³³



82. The following are actual images of an ARC hybrid driver inflator:



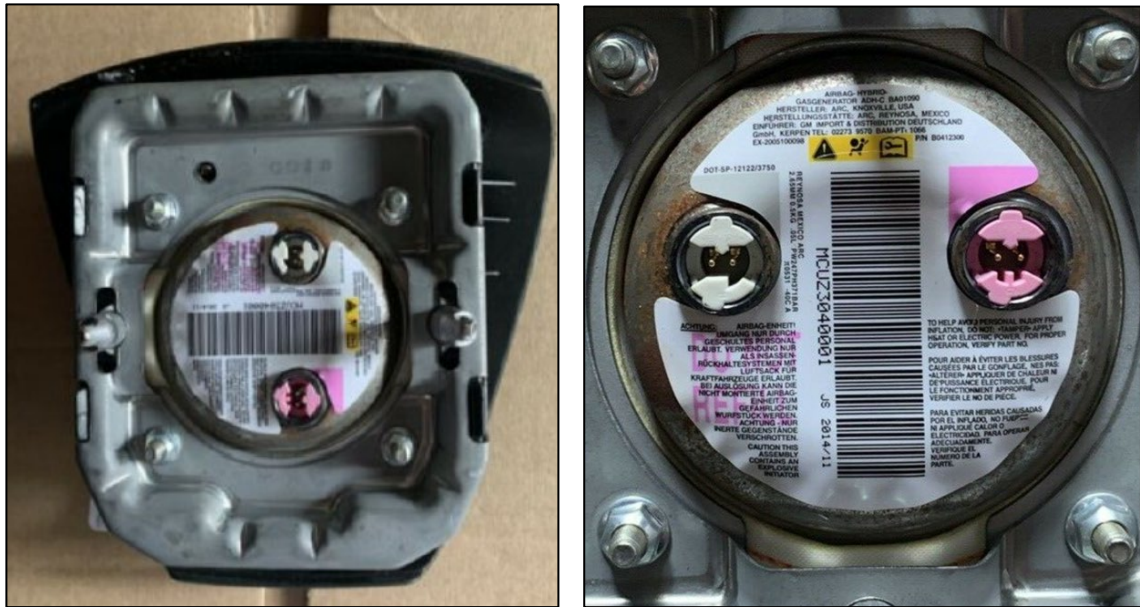
Top: Top-down view of an ARC hybrid toroidal driver inflator.

Bottom: Cross sectional view of an ARC hybrid toroidal driver inflator.

³² ARC, Products, Dual Level CADH Hybrid Inflator (last accessed Apr. 21, 2022).

³³ ARC, Products, Dual Level PH7 (120) Hybrid Inflator (last accessed Apr. 21, 2022).

83. The following photos show the back side of the driver inflator which is centrally located on the back of the airbag module assembly (the side facing away from the driver) for the 2013-2017 Chevrolet Traverse. The photo on the right shows that same inflator photo zoomed-in on the label that identifies it as an ARC DCADH-C inflator:³⁴



84. Below are photos of an ARC hybrid front passenger inflator identified as an ARC PH7 used in the 2015-2017 Audi A3.³⁵ The photo shows the similarity to the driver side inflator used in the GM vehicle models cited above.



³⁴ eBay, 2013-2014-2015-2016-2017 Chevrolet Traverse Driver Airbag (last accessed Apr. 21, 2022).

³⁵ Audi A3 Right Passenger Dash Bag, eBay.



85. The inflators are attached to different airbag cushions, which are tailored to the size and shape needed for a driver or passenger module. For example, the image below is of the passenger side airbag in a 2015-2017 Audi A3 which was manufactured by Key Safety Systems (KSS), a predecessor of Defendant Joyson.³⁶



86. As noted, to function, an airbag needs the chemical propellant to create a controlled explosion. ARC has used ammonium nitrate as its propellant since at least 2001. Ammonium nitrate is a desirable propellant for an automaker or part supplier because it affords a high percentage of gas in its combustion and is inexpensive. Ammonium nitrate is commonly used as a fertilizer and is well known for its use in making cheap explosives. Both NHTSA's own investigations, and a December 2015 version of ARC's Material Safety Data Sheet (MSDS) for its hybrid inflators, confirm as much.

87. Because of its natural habit of changing shape and volume with temperature changes, ammonium nitrate is used in inflators only when it is precisely phase stabilized. Phase stabilized ammonium nitrate or "PSAN," suppresses volume changes that would

³⁶ *Id.*

1 otherwise occur with temperature cycling. In the face of an unexpected rise in pressure,
 2 such as a blocked ventilation exit orifice, PSAN burns exponentially faster than many
 3 other propellant chemicals.³⁷ PSAN's faster dynamic burning rate, or burning en masse,
 4 means that the gases can build up faster than the metal canister can handle if the
 5 ventilation exit orifices are inadequate or obstructed.

6 88. Even though the causes of the ruptures were different in Takata's inflators,
 7 Takata's use of PSAN in its deadly airbag inflators focused the industry's attention on
 8 the potential for PSAN to be volatile. In 2019, ARC itself in a patent recognized that
 9 PSAN was "considered unacceptable" even in hermetically sealed hybrid inflators.³⁸
 10 ARC, and indeed all Defendants, were aware of PSAN's risks and the explosive force
 11 that results from the speed of combustion. Thus, they knew that ARC's airbag inflator
 12 housing needed to, at least, incorporate features that mitigate against structural failure
 13 due to excessive pressure. Thus, the inflators must be designed with a sufficient number
 14 of ventilation exit orifices in correct locations such that they will not be blocked.

15 89. Based on a review of recalls from 2000 to present involving inflator
 16 ruptures, whether in the manufacturing facilities or in the field, such ruptures are
 17 exceedingly rare in designs that do not contain ammonium nitrate in the propellant. The
 18 bottom line is that ARC designed its Defective Inflators using a highly explosive and
 19 unstable propellant that it knew was associated with dangerous ruptures under certain
 20 circumstances and required properly designed and engineered ventilation measures.
 21 Thus, ARC and the other Defendants were aware and on notice that the inflators must
 22 be designed to withstand and avoid over pressurization of the inflator housing due to the

23 _____
 24 ³⁷ PSAN is considered overly risky and inappropriate by most in the scientific,
 25 research, safety, automaker, and supplier manufacturing communities. Thus, most
 26 inflator manufacturers now use a variant of guanidine nitrate as the fuel in their
 27 propellant in frontal impact airbag designs. Guanidine nitrate has been proven over the
 28 last two decades to be a safe and durable propellant chemical. A small number of
 airbag propellant manufacturers have used ammonium nitrate due to cost savings.

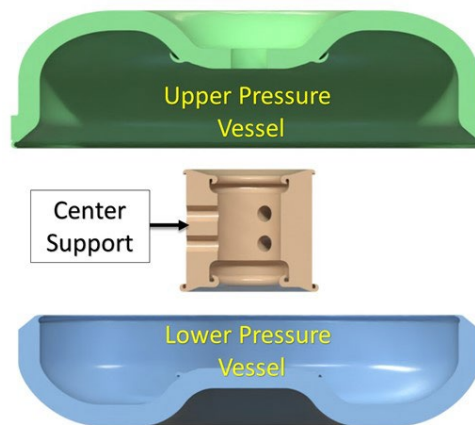
³⁸ Patent US 2019/0218155 A1, Non-Ammonium Nitrate Based Generants, filed Jan.
 17, 2019, publ. July 18, 2019, at 2.

1 presence of the propellant. This was a known mechanism of failure.

2 **D. The Defect**

3 90. Against this background, all ARC's Defective Inflators had a serious design
4 defect or defects: the presence of asymmetrical and unstable weld "flash" in the interior
5 of the inflator housing combined with insufficient ventilation using a single exit orifice.
6 This design is what causes the ruptures, as explained in detail below.

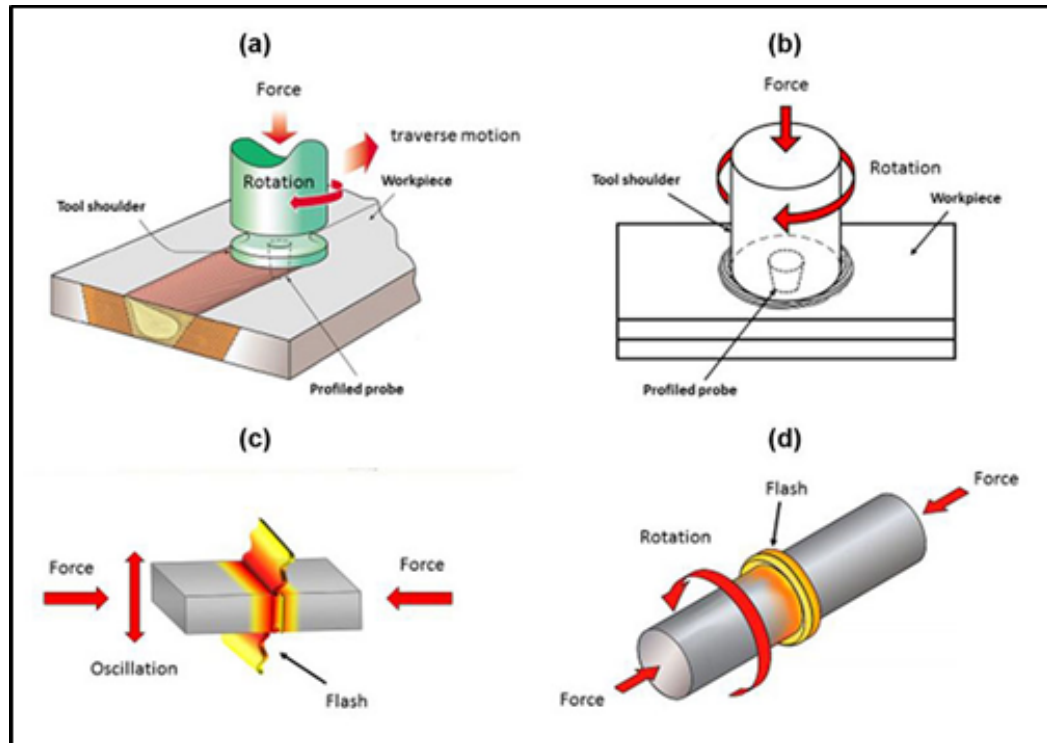
7 91. The housing components of the ARC hybrid inflators consist of an upper
8 pressure vessel, a lower pressure vessel, and a center support. Each piece of the DCADH
9 inflator sections is illustrated below:



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17 *Above: A side-view drawing of sections of the ARC hybrid DCADH inflator sections.*

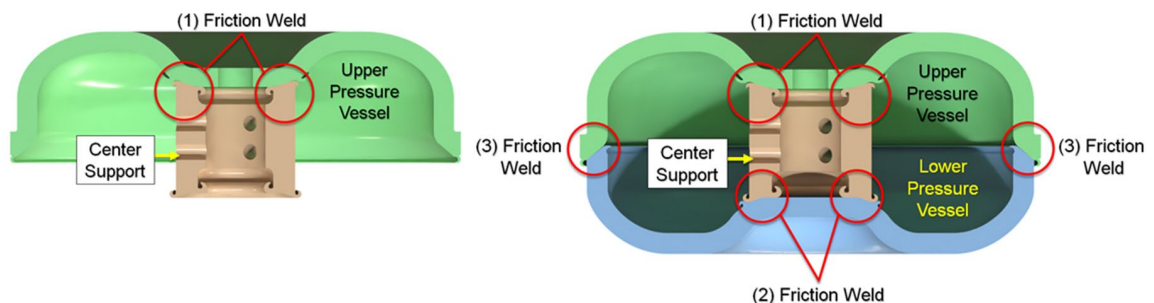
18 92. During assembly, ARC joins each of these three pieces of metal together.
19 During the relevant period, ARC's design process specifications provided for these
20 component parts to be joined using friction welding; a process carried out pursuant to
21 the specific designs of ARC, the Airbag Module Defendant, the Airbag Module
22 Suppliers, and Automaker Defendants. Friction welding generates heat through
23 mechanical friction between a moving component and a stationary one, while at the same
24 time applying a lateral force (or pressure), called an "upset," to the parts. This displaces
25 and ultimately fuses the material. Friction welding is a process carried out pursuant to a
26 specific design; "no operator skill is involved."³⁹

27
28 ³⁹ Thompson Friction Welding, "A Practical Guide to Friction Welding," Sept. 26, 2004, at 30.



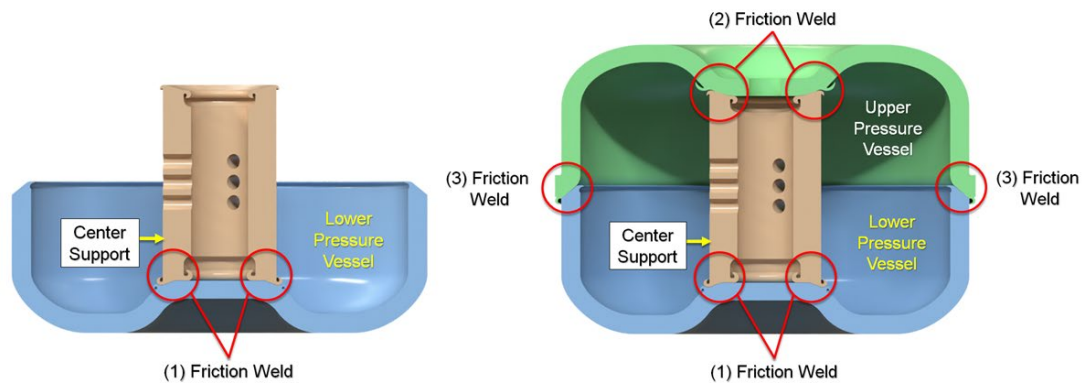
Above: Examples of friction welding techniques.

93. The ARC hybrid inflators utilize three separate friction welds. The order in which the welds are performed are different for the driver and passenger inflators. For the driver's inflator, in the CADH and DCADH, the first friction weld is between the upper pressure vessel and the center support. The second friction weld is between the center support and the lower pressure vessel. The third friction weld joins the lower and upper pressure vessels together. Friction welds two and three are performed during the same operation. All relevant driver side inflators are substantially similar in their design and manufacturing, and all were defective when they left ARC's facilities.



Left: Friction weld (1). Right: Friction welds (2) and (3).

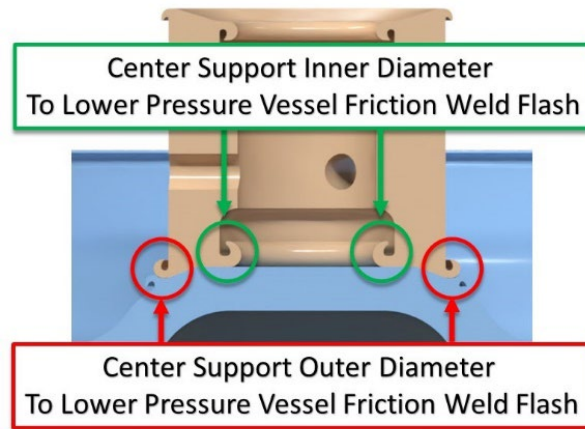
94. For the passenger inflators, in the PH7-90, PH7-120 (single stage) and PH7-120, DPH7 (dual stage), the first friction weld is between the lower pressure vessel and the center support. The second friction weld is between the center support and the upper pressure vessel. The third and final friction weld joins the lower and upper pressure vessels together. Friction welds two and three are performed during the same operation. All relevant passenger side inflators are substantially similar in their design and manufacturing, and all were defective when they left ARC's facilities.



Left: Friction weld (1). Right: Friction welds (2) and (3).

95. "Slag" or "flash," the excess metal that collects at the seam or joint of the two pieces being adjoined, is a natural byproduct of most welding methods, including friction welding. In ARC's Defective Inflators, flash is created at each of the seams between the joined parts, both on the exterior and interior of the airbag inflator.

96. Controlled and consistent flash formation is a normal and expected byproduct of the friction welding process. In the illustrations below, the flash is uniform and materializes in a "ram's horn" shape (so named because it resembles a ram's horn). Such flash is uniform, symmetrical, and stable. That is, it does not contain odd or irregular shaped pieces. It does not have pieces hanging on by thin, unstable connections, and thus, will stay in place. In other words, it will not block ventilation exit orifices or otherwise interfere with airbag deployment, an inherently turbulent process.



3D Model showing center tube to lower pressure vessel flash in “ram’s horn shape.”

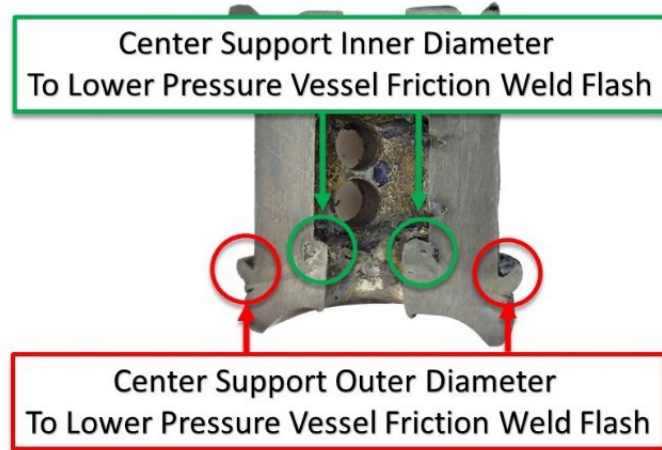
97. Notably, friction welding is a design choice that ARC made. Not all toroidal airbag inflators are joined using friction. There are multiple types of welding, including, for example, laser welding, which does not produce flash. And friction welding – when the proper components are matched with proper machinery, specifications, and techniques – can also produce uniform flash in the “ram horn” shape discussed above. That, however, is not what ARC chose.

98. ARC designed a process that generated asymmetrical, brittle, and sometimes excess weld flash along the internal seams of its friction welds. If certain parameters, such as part-to-part alignment, rotational speed, the force applied to the parts being welded, or the machine’s balance, among other things, are out of specification during the friction welding process, such asymmetrical flash will collect at the joint of the parts being welded. ARC’s friction welding process allowed for the chance that asymmetrical and brittle weld flash could form at the seams of any inflator. Without designing a procedure to confirm no irregular flash had formed, which it did not implement until 2018, whether or not a vehicle’s inflator contains such irregular flash is unpredictable and unknown.

99. From the introduction of its hybrid inflators in 2000, through 2017, ARC did not physically check the quality of the interior friction welds, nor did it have any controls in place to identify asymmetrical flash occurring inside of the Defective

Inflators. The pictures below show the asymmetrical weld flash collected in the interior of an ARC inflator at the union of the center support and upper pressure vessel. Unlike the weld flash in the illustrations above, the flash at this point in the inflator is not symmetrical or uniform.

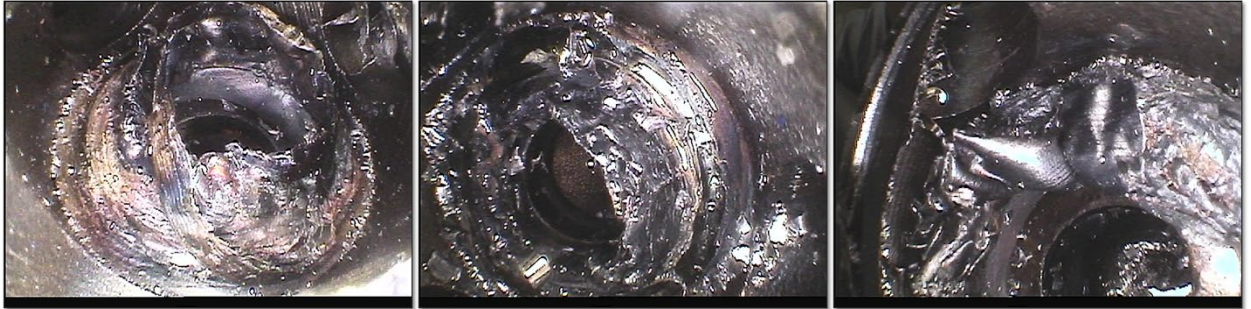
Actual Picture of Asymmetrical Internal Weld Flash



Flash on the inner diameter of the support tube of an exemplar ARC Defective Inflator



1 *Excess asymmetrical weld flash at the support tube inner diameter to upper pressure*
 2 *vessel interface in field collected ARC hybrid inflators*



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9 100. When the asymmetrical weld flash is exposed to the gas flow through the
 10 gas ventilation exit port generated during the deployment, pieces of the flash in
 11 proximity of the exit port are at risk of dislodging. If the dislodged weld flash is large
 12 enough to block the gas exit port, the dislodged weld flash restricts gas exiting and will
 13 result in an increase of pressure in the inflator housing. As the internal pressure of the
 14 inflator increases due to the gas exit port restriction, the toroidal metal housing expands,
 15 deforms, and changes shape from the toroid shape to more of a ball shape until it reaches
 16 the point of rupture.

17 101. During a driver side rupture of an ARC hybrid inflator, the inflator housing
 18 expands due to the excessive internal pressure. This stretches the center support because
 19 it is welded to the top and bottom portions of the inflator housing. Eventually the center
 20 support violently fractures in line with the gas flow, and the center support and the upper
 21 pressure vessel are propelled towards the occupant.

22 102. When the inflator housing ruptures, internal components of the inflator can
 23 be ejected as gas pressure ventilates into the passenger compartment, which can injure
 24 or kill the occupants. In addition to propelling internal inflator components toward the
 25 driver, the entire module assembly may also break free of the steering wheel and strike
 26 the driver which can cause injury or death.

27 103. In its recall of one manufacturing lot of ARC passenger-side inflators, Ford
 28 noted that, “[p]reliminary analysis indicates that weld flash from the inflator canister

1 welding process at the Tier 2 inflator supplier may obstruct the gas exhaust port.”⁴⁰ If
 2 the ARC welding process incorporated into the design of the inflators allows weld flash,
 3 or pieces of weld debris, to block exhaust ports, the PSAN can exacerbate the over-
 4 pressurization and lead to an explosive rupture.

5 104. This is a design defect, which can allow undetected pieces of weld flash to
 6 obstruct the single, static exhaust port and cause the airbag inflator to explode.

7 105. As noted, a reasonable alternative design was to select a welding method
 8 or type of machinery that produced stable and uniform weld flash. But ARC had other
 9 options as well. It could have incorporated more robust pressure relief valves into its
 10 design or included multiple exit ports to the inflator. A pressure relief mechanism would
 11 have mitigated the dangers of both PSAN-related over-pressurization and ruptures
 12 caused by a restricted gas exit port.

13 106. ARC was aware that utilizing a pressure relief mechanism would mitigate
 14 the dangers of both PSAN-related over-pressurization and those ruptures caused by a
 15 restricted single gas exit port. According to a *New York Times* article, as part of its efforts
 16 to mitigate the known dangers associated with PSAN, in the early 2000s, ARC’s
 17 competitor, TRW, incorporated a pressure relief valve in its PSAN-based inflators that
 18 allowed gas to escape should the inflator begin to over-pressurize.⁴¹

19 107. In fact, ARC has designed inflators that do contain such a mechanism. In
 20 February 2013, for example, ARC filed a patent entitled, “Variable Orifice
 21 Construction,” that would allow the inflator to increase the size of the exit orifice when
 22 the internal gas pressure was rising.⁴² Although the patent mentions that the flexible
 23 orifice size is needed because some propellants result in higher pressure than others, it
 24 does not mention the fact that the invention would also reduce the chance of a flash

25 _____
 26 ⁴⁰ Ford, Recall No. 17V529, Part 573 Safety Recall Report, Aug. 31, 2017.

27 ⁴¹ “A Cheaper Airbag, and Takata’s Road to a Deadly Crisis,” N.Y. Times, Aug. 26,
 2016.

28 ⁴² U.S. Patent 8,770,621 B1, Variable Orifice Construction, filed Feb. 26, 2013, pub.
 July 8, 2014.

1 nugget blocking the orifice enough to cause a rupture.

2 108. In December 2020, ARC implicitly acknowledged both that its current
3 design allowed for weld flash to partially block the exit orifice and that its current design
4 did not adequately ventilate excess gas when it filed a patent application entitled,
5 “Airbag Inflator With Pressure Relief Valve and Increased Combustion Efficiency.”⁴³

6 109. In the patent, ARC stated:

7 Some existing inflator assemblies utilize a center support structure that
8 requires two simultaneous welds, which is problematic in respect of
9 manufacturing and also increases the potential for weld particles to exit the
10 inflator upon deployment. Existing designs have also been configured to
11 fragment during deployment as a consequence, in the event of excessive
pressure increase within the inflator due to some failure or external
condition or the like, these existing inflator designs can be potentially
hazardous for vehicle occupants.⁴⁴

12 110. ARC continued, “[i]t would be desirable to provide an airbag inflator that
13 reduces gaseous effluents with efficient combustion while incorporating additional
14 safety features in respect of venting and unintended increased in internal pressure and
15 weld particles.”⁴⁵ ARC proposed a hybrid inflator design in which “[t]he multiple sub-
16 chambers are connected to one another via control vents. A canister lid with vent holes
17 encloses the energetics canister. A flow diverter is placed into the booster can retain the
18 energetics cover to the energetics canister and to further direct and control pressure and
19 flow before exiting the top vessel via a control orifice.”⁴⁶

20 111. The inflator would also have flow diverters to “further direct and control
21 pressure and flow before exiting the top vessel.”⁴⁷ Finally, the inflator would have a
22 pressure relief mechanism in the bottom portion of the inflator “in the event of excess
23

24 ⁴³ U.S. Patent 2022/0185224 A1, Airbag Inflator With Pressure Relief and Increased
25 Combustion Efficiency, filed Dec. 11, 2020, pub. June 16, 2022, at 10 (emphasis
26 added).

26 ⁴⁴ *Id.* (emphasis added).

27 ⁴⁵ *Id.*

28 ⁴⁶ *Id.*

⁴⁷ *Id.*

1 internal pressure without any rupture of the inflator during a deployment event.”⁴⁸
 2 During manufacturing, ARC would conduct hydroburst tests to confirm that the pressure
 3 relief mechanism works in the case of an over pressurization.

4 112. Further, ARC knew about the defect and the potential for inflator ruptures
 5 but failed to implement meaningful manufacturing process changes and effective quality
 6 control systems until 2018. In 2018, ARC implemented manufacturing process changes,
 7 including a borescope system to visually inspect 100 percent of the upper vessel to
 8 support tube friction welds prior to sale. Implementing this quality control measure
 9 sooner was a preventable means to stop Defective Inflators from reaching and
 10 endangering tens of millions of consumers.

11 113. This is not the first time that ARC has been accused of improper/defective
 12 welding. During the infamous Takata recalls, the bankrupt successor entity to Takata
 13 Corporation, Reorganized TK Holdings Trust, sued ARC, alleging that ARC provided
 14 Takata’s U.S. subsidiary, TK Holdings, Inc., with defective side airbag inflators which
 15 caused TK Holdings’ customer (General Motors) to issue a recall on its vehicles
 16 manufactured during the period the defective inflators were supplied by ARC. TK
 17 Holdings, Inc. alleged, *inter alia*, damages arising from breach of contract.⁴⁹

18 114. As alleged by TK Holdings, Inc., “ARC’s inflators failed due to
 19 improper/defective welding.”⁵⁰ As aptly stated by TK Holdings, Inc., “[t]he inflators
 20 provided by ARC were not reasonably fit for their intended, anticipated, or reasonably
 21 foreseeable use.” Accordingly, the defective inflators suffered from the additional issue
 22 of poor process control.

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 26 ⁴⁸ *Id.*

27 ⁴⁹ *Reorganized TK Holdings Trust v. ARC Auto., Inc.*, Bankr. D. Del., No.
 28 1:19ap50266, Complaint, June 24, 2019.

⁵⁰ *Id.*

E. NHTSA Concludes That ARC Inflators Are Defective

1. Preliminary Evaluation and Engineering Analysis

115. In July 2015, NHTSA’s Office of Defects Investigation (“ODI”) opened a Preliminary Evaluation (PE15-027) into 490,000 ARC driver side hybrid airbag inflators manufactured between 2001 and 2004, based on the two ruptures it was aware of. In the opening resume, NHTSA stated the inflators “may rupture during frontal air bag deployment resulting in metal fragments being propelled into the passenger compartment.” NHTSA opened the investigation because, in December 2014, it received notice of a rupture that occurred in 2009 involving a 2002 model year Chrysler Town & Country, as well as notice in June 2015 of a rupture in a 2004 model year Kia Optima. When NHTSA realized that both inflators were ARC hybrid inflators, it opened the investigation.⁵¹

116. After requesting and receiving some information on design, manufacturing, and quality control processes covering the relevant inflators, NHTSA issued several standing general orders (“SGO” or “SGOs”), including SGO 2015-01, SGO 2015-01A, SGO-2015-02, and SGO 2015-02A. These SGOs were directed not only at ARC but also certain automakers – including some Automaker Defendants – and required each entity to timely report information about field ruptures upon notice.

117. In March 2016, NHTSA met with ARC at its Knoxville, Tennessee headquarters, a representative of the Hyundai-Kia Defendants, and the relevant Tier 1 supplier. On information and belief, as is custom in the industry, the Hyundai-Kia Defendants, the relevant Tier 1 supplier, and ARC communicated prior to meeting with NHTSA.

118. NHTSA, ARC, the Airbag Module Defendant, Airbag Module Suppliers, and Automaker Defendants responsible for the vehicles affected by this issue (inflators manufactured between 2001 and 2004) continued meeting to determine how to evaluate

⁵¹ NHTSA, Investigation PE15-027, ODI Opening Resume, July 13, 2015.

1 the propensity for the Defective Inflators to fail. The result was a program whereby
 2 ARC, the relevant Defendants and relevant Airbag Module Suppliers collected and
 3 tested Defective Inflators from the field.

4 119. Because the initial round of testing did not include a sufficient number of
 5 inflators, the Defendants expanded the collection efforts. The Defendants and NHTSA
 6 decided that the appropriate number of airbags to test was 459 inflators of each type.
 7 This would be a total of 918 inflators, 459 single-level CADH and 459 dual-level
 8 CADH. The relevant Defendants supplied VIN numbers for the vehicles at issue and
 9 agreed to a testing process. Roughly, the process went as follows: the Automaker
 10 Defendants located the relevant inflators and shipped them to ARC's lab in Knoxville,
 11 Tennessee, for testing. ARC inspected and x-rayed each inflator, deployed them in test
 12 tanks, and recorded any ruptures. ARC shared this data with both NHTSA and the
 13 Automaker Defendants.

14 120. Ultimately, by May 2018, ARC's testing was complete, and it claimed that
 15 none of the inflators ruptured.

16 121. While this process was underway, in August 2016, NHTSA upgraded the
 17 Preliminary Evaluation to an Engineering Analysis (EA16-003), which is a more in-
 18 depth, detailed investigation. During its Preliminary Evaluation, NHTSA learned that
 19 GM and Hyundai also used airbag modules that contain ARC hybrid driver inflators.⁵²
 20 NHTSA upgraded and expanded the investigation to all ARC inflators installed in U.S.
 21 vehicles after learning about a fatal rupture in a 2009 Hyundai Elantra that occurred in
 22 Canada in July 2016.

23 122. In its "ODI Resume" (a technical form completed as part of the NHTSA
 24 investigation process) announcing the Engineering Analysis, NHTSA noted the inflators
 25 involved in the three known field incidents had ruptured in "substantially the same
 26 manner" and were "assembled using substantially the same manufacturing process."⁵³

27 _____
 28 ⁵² NHTSA, Investigation EA16-003, ODI Opening Resume, Aug. 4, 2016.

⁵³ *Id.*

1 NHTSA's stated focus was to determine how many ARC driver inflators were in
 2 vehicles in the United States and to collect more ARC inflators from the field to test and
 3 evaluate them to determine a root cause.⁵⁴

4 123. When NHTSA opened EA16-003, it issued a series of information request
 5 letters to Tier 1 suppliers that utilized ARC's hybrid toroidal inflators, and the relevant
 6 Automaker Defendants. The letters focused on information for front airbag modules
 7 using hybrid toroidal shaped ARC inflators. In NHTSA's information request to ARC,
 8 NHTSA stated, "[t]o assist us at this stage of the investigation, we are requesting certain
 9 information concerning all toroidal shaped frontal air bag inflators manufactured by
 10 ARC that were subsequently supplied to a Tier 1 or other air bag system manufacturer,
 11 for incorporation into their completed air bag modules...from the start of production
 12 (SOP) up to the date of this letter."⁵⁵

13 124. NHTSA has not publicly released most of the documents filed in the EA16-
 14 003 investigation. It has posted the letters it sent to various automakers, Tier 1 suppliers,
 15 and ARC on its website, but not the companies' responses.

16 125. At some point in 2016, NHTSA further learned that some of the LAT for
 17 ARC's inflators involved poor welds on passenger hybrid 7 (PH7) inflators. NHTSA
 18 accordingly sought information about this issue from ARC under SGO 2016-01. ARC
 19 met with NHTSA to address this issue as well.

20 126. In October 2016, NHTSA published a letter it sent to ARC chastising the
 21 company for failing to respond to its requests. This strongly worded letter puts the lie to
 22 ARC's claims in its May 2023 letter that it has completely cooperated with NHTSA.
 23 The letter from NHTSA states, in part:

24 127. Furthermore, beyond ARC's lax response to compulsory process, ARC's
 25 attitude and approach to NHTSA's investigation remains troubling. Since this
 26 investigation was opened, ARC has on more than one occasion questioned the necessity

27 _____
 28 ⁵⁴ *Id.*

⁵⁵ NHTSA, EA16-003, Ltr. to ARC, Aug. 9, 2016.

1 of providing certain information, failed to provide documents in a readable format,
2 appeared nonchalant in its approach to developing a testing plan or protocol, and has
3 advocated for the closure of the investigation without possessing or providing a full
4 understanding of the root cause for at least one of the underlying inflator ruptures.

5 128. Additionally, a number of incidents involving ARC's product have been
6 brought to NHTSA's attention by vehicle manufacturers and other suppliers. These
7 incidents range from testing failures to recalls and raise serious questions regarding the
8 quality and integrity of ARC's air bag inflators. While vehicle manufacturers and other
9 suppliers have voluntarily notified NHTSA of these and other incidents without the need
10 for a formal request, ARC has failed to take any steps to notify NHTSA of these
11 incidents, or their potential relationship to the incidents under investigation. After
12 NHTSA learned of one of these incidents earlier this year, NHTSA contacted ARC and
13 indicated that the company needed to provide this type of information to NHTSA
14 proactively. Instead of noting the serious nature of these incidents and committing to
15 work with NHTSA to determine the appropriate range of issues at hand, ARC's counsel
16 stated that they had no obligation to provide such information and chastised NHTSA
17 staff for indicating otherwise.

18 129. Compounding ARC's failure to inform NHTSA of these matters, ARC has
19 also failed to comply with Standing General Order 2015-02A, issued in the underlying
20 Preliminary Evaluation, which requires ARC to file a report within five days of receiving
21 notification of an inflator field rupture. On July 8, 2016, a fatal rupture occurred in
22 Newfoundland, Canada. NHTSA was notified of this incident on by both Transport
23 Canada and by Hyundai. Although ARC was clearly notified of the incident, as
24 demonstrated by ARC's attendance at an inspection of the vehicle that occurred on July
25 26, 2016, ARC has failed to provide any report to NHTSA regarding that incident. As
26 noted by the Standing General Order, failure to comply with that obligation calls for the
27 imposition of daily civil penalties.

28 130. ARC's response to NHTSA's investigation to date does not demonstrate

1 the behavior that NHTSA expects of manufacturers, much less manufacturers of vital
 2 safety components utilized in vehicles across the globe. To the contrary, ARC's behavior
 3 has demonstrated a lack of cognizance regarding the seriousness of this investigation
 4 and the underlying issues. ARC has been given every consideration, yet has failed to
 5 respond in kind...⁵⁶

6 131. In April 2017, NHTSA once again sought further information from ARC,
 7 this time through a special order with 56 requests for information directed at all of the
 8 inflators ARC had ever produced.

9 132. Shortly after NHTSA issued these requests, ARC, NHTSA, the Automaker
 10 Defendants, Airbag Module Defendant, and Airbag Module Suppliers formed what they
 11 term the "Collaboration Team" or the "ARC Joint Task Force." The purpose was
 12 ostensibly to investigate the ruptures of ARC's Defective Inflators. Ultimately, the
 13 Collaboration Team presented its findings to NHTSA.

14 133. Although publicly available documents do not make it clear, it is apparent
 15 that the Collaboration Team determined that ARC's welding design was faulty. ARC
 16 admits that, following this presentation to NHTSA, it "implemented changes to the weld
 17 schedules of the existing IFW friction welders and implemented an automated borescope
 18 inspection system." It also "invested in capital improvements through the acquisition of
 19 state-of-the-art Izumi friction welders." ARC agrees that these were "corrective actions."
 20 These changes are confirmed by documents included in the EA16-003 document
 21 request, which state that ARC implemented equipment and process improvements on all
 22 toroidal inflator assembly lines on January 31, 2018.

23 134. In August 2020, NHTSA requested additional information specifically
 24 regarding the PH7 toroidal shaped hybrid front passenger airbag inflator "to facilitate its
 25 investigation of the potential risk of deployment-related field rupture."⁵⁷ Regarding the
 26

27 ⁵⁶ NHTSA, EA16-003, Ltr. to ARC, Re: ARC's Response to EA16-003, Oct. 4, 2016,
 28 at 3 (emphasis added).

⁵⁷ NHTSA, EA16-003, Ltr. to ARC Automotive, Inc., Aug. 18, 2020.

PH7 inflator, NHTSA focused on a time frame “defined by a) a starting point of June 1, 2014, the inflator build date of a confirmed field event, and b) the end point of January 31, 2018, the implementation date of equipment and process improvements by ARC on all toroidal inflator assembly lines.”⁵⁸ NHTSA sent similar letters requesting information about the PH7 passenger hybrid inflator to vehicle manufacturers Volkswagen, BMW, Fiat Chrysler, GM, Toyota, Kia, and Hyundai.

135. In April 2021, NHTSA posted a memorandum to the public file for EA16-003 stating that it was reviewing ARC’s responses to redact all personally identifiable information and that these types of responses “are usually complex, contain large volumes of documents, and require additional time for review and redaction.”⁵⁹ NHTSA asserted that, “[t]he public version of the response will be posted to this investigation file when available.” The response has yet to be publicly posted.

136. On August 31, 2022, NHTSA called a meeting that included ARC, Automaker Defendants, the Airbag Module Defendant, and all Airbag Module Suppliers. At the meeting, NHTSA revisited the history of the investigation and indicated that it would issue further information requests. It issued those requests in December 2022 and sought information about ARC’s process changes, as well as the “accept/reject quantities” from the time that ARC started using borescopes to check its interior welds. ARC responded to NHTSA in February of 2023. The “accept/reject” rates are not yet public.

137. On April 25, 2023, NHTSA met with GM to inspect a 2017 Chevrolet Traverse in which the driver inflator ruptured during a crash. Two days later, on April 27, 2023, NHTSA issued a letter to ARC requesting that it recall all 67 million of its Defective Inflators. In this letter NHTSA:

tentatively concluded that a defect related to motor vehicle safety exists in the frontal driver and passenger airbag inflators under investigation that were produced before installation of borescopes on all toroidal inflator

⁵⁸ *Id.*

⁵⁹ NHTSA, EA16-003, Memo. Re: Response to Information Request, Apr. 13, 2021.

1 manufacturing lines in January 2018 (“subsequent inflators”). . . NHTSA
2 demanded that ARC issue a Part 573 Recall report to address the defect.

3 138. NHTSA confirmed that through January 2018, ARC supplied 67 million of
4 the Defective Inflators to six Tier 1 airbag system manufacturers. Of the 67 million, 11
5 million were manufactured by Delphi (now owned by the Autoliv Defendants) under a
6 license from ARC. The Defective Inflators have been installed in cars manufactured by
7 at least 12 vehicle manufacturers.

8 139. NHTSA confirmed what is outlined above – that ARC’s friction welding
9 generates weld slag or flash. If that slag or flash breaks loose during deployment it will
10 follow the air flow through the sole exit port. Because there is only a single exit port in
11 ARC inflators, pieces of flash may (and sometimes do) block the exit port. This leads to
12 a rupture of the airbag inflator and sends shrapnel into the vehicles and towards
13 passengers.

14 140. NHTSA noted (as discussed *infra*) that, to date, the automakers have
15 addressed the Defective Inflators only by issuing recalls limited to the lots associated
16 with a failed airbag inflator. Despite all of this information and ARC’s own claims of
17 cooperation, NHTSA noted that ARC had not determined there was a defect or that a
18 recall is necessary.

19 141. NHTSA explained that a defect is a motor vehicle or motor vehicle
20 equipment that exposes the public to an “unreasonable risk of death or injury in an
21 accident . . .” 49 U.S.C. § 30102(8). NHTSA concluded that a “defect that occurs in an
22 essential component of a piece of motor vehicle equipment, such as in this matter
23 involving a frontal air bag inflator, presents an unreasonable risk to safety.” Stating the
24 obvious, NHTSA determined that an “airbag inflator that ruptures when deploying in a
25 vehicle is plainly defective.” NHTSA also found that the number of ruptures and/or field
26 events at issue were not “de minimis.” Those events are discussed below in further detail.

27 **2. Early Injuries, Deaths, and Piecemeal Recalls**

28 142. There have been at least 10 known ruptures of ARC’s Defective Inflators

1 in vehicles, including seven driver inflators and three passenger inflators. Two of those
 2 ruptures resulted in driver fatality. Additionally, two passenger inflators ruptured during
 3 LAT at ARC's factory. Five of the ruptures resulted in significantly limited recalls of
 4 other vehicles that contained other inflators only from that lot. The most recent rupture
 5 resulted in a larger-in-scope recall by GM but was still isolated to one inflator variant.
 6 On information and belief, there have been multiple other inflator ruptures, either in the
 7 field or in testing, that have not been publicized.

8 143. The Defective Inflators themselves were manufactured at various ARC
 9 factories and include both dual-stage (which has a two-stage deployment based on the
 10 severity of the crash) and single-stage (which deploys at the same rate no matter the
 11 crash severity) inflators. They all, however, share common defects. For example, all the
 12 components were joined with friction welding that used the same or substantially similar
 13 parameters that produces asymmetrical flash on the interior seams of the inflator
 14 compartment. In fact, there are documented field and LAT ruptures on inflators
 15 produced from multiple manufacturing facilities, *infra*. Moreover, all the inflators have
 16 a single exit port, and none were designed with an adequate pressure relief mechanism
 17 as discussed *supra* to prevent a rupture. All contained PSAN in their secondary
 18 propellant, posing a risk of an exponential increase in pressure and, consequently, the
 19 risk of a rupture. These facts strongly suggest a systemic design defect in the inflators
 20 rather than a manufacturing defect occurring at one location, for one lot, for a short
 21 period of time, due to a non-conforming assembly process.

22 144. Little is publicly known about the ten field ruptures. News reports have
 23 largely reported only on the information provided by NHTSA in the few investigation
 24 documents it made public. News reports about the two fatal incidents do not include
 25 information about the drivers or their locations.

26 145. The following is what is known about each rupture and recall thus far:

27 *i. The 2009 "Dutton Rupture"*

28 146. In January 2009, in Ashtabula County Ohio, an ARC DCADH ruptured in

1 a 2002 Chrysler Town and Country minivan severely injuring Lois Dutton.⁶⁰ According
 2 to Ms. Dutton, "[i]t broke my jaw in three places. Collapsed a lung." The inflator was a
 3 dual-stage hybrid inflator manufactured at ARC's Knoxville, Tennessee, facility.⁶¹ It
 4 even sent shrapnel through her chest and out of her back. Ms. Dutton spent three months
 5 in a medically induced coma after the incident and faced hundreds of thousands of
 6 dollars in medical bills.

7 147. The Dutton ARC rupture was attributed to a "single isolated event" and no
 8 actions were taken. This occurrence and write-off as a "single isolated event" is very
 9 similar to what occurred in the Takata recall with what is known as Event Zero. Event
 10 Zero was the first field rupture of a Takata PSAN PSDI inflator, and instead of
 11 performing a thorough investigation, Takata and Honda wrote it off as an "anomaly"
 12 and only took any action when additional field ruptures took place three years later.

13 *ii. The 2014 Kia Optima Rupture*

14 148. On April 8, 2014, the ARC driver inflator in a 2004 Kia Optima ruptured
 15 during a frontal impact crash in New Mexico.⁶² The driver suffered serious injuries. The
 16 inflator was a single-stage inflator made at ARC's Knoxville, Tennessee, facility.⁶³ The
 17 driver sued Kia Corp. and Kia America, Inc., under their previous names, and the lawsuit
 18 was settled quickly. Kia did not issue a recall. In its investigation, NHTSA indicated that
 19 this inflator was placed in a Delphi Automotive Systems Corp. airbag module. Delphi
 20 was acquired by the Autoliv Defendants in 2009.

21 *iii. The 2016 Hyundai Elantra Rupture*

22 149. On July 8, 2016, the driver of a 2009 Hyundai Elantra was killed in Canada
 23
 24

25 _____
 26 ⁶⁰ NHTSA, Investigation PE15-027, ODI Opening Resume, July 13, 2015.

27 ⁶¹ *Id.*

28 ⁶² *Chavez v. Kia Motors Corp.*, D.N.M., No. 1:15-cv-00462, First Amended
 Complaint, June 25, 2015.

⁶³ NHTSA, Investigation PE15-027, ODI Closing Resume, Aug. 25, 2016.

1 when an ARC driver inflator exploded during a crash.⁶⁴ This inflator was a single-stage
 2 inflator made in ARC's China facility.⁶⁵ Hyundai later recalled 2,022 MY 2009 Elantra
 3 vehicles in Canada, but did not issue a recall in the United States.⁶⁶ This recall was
 4 performed to collect parts for Transport Canada defect investigation 3280-38-10 in an
 5 effort to aid in the analysis by Hyundai and Transport Canada. The recovery program
 6 ended on February 5, 2020, with a note stating: "No safety defect has been identified
 7 with these vehicles and this action is not being conducted under the requirements of the
 8 Motor Vehicle Safety Act."

9 *iv. The 2017 BMW Lot Qualification Rupture and Recall*

10 150. On February 8, 2017, a Tier 1 supplier, Key Safety Systems notified BMW
 11 that an ARC DPH-7 passenger hybrid inflator intended for BMW ruptured during a
 12 quality check or LAT at an ARC facility on January 29, 2017.⁶⁷ The DPH-7 inflator was
 13 manufactured at ARC's Reynosa, Mexico, facility.⁶⁸ On March 21, 2017, BMW issued
 14 Recall 17V-189 for 36 vehicles equipped with ARC DPH-7 passenger front inflators.

15 151. The DPH-7 uses the same friction welding process as both the CADH and
 16 DCADH. According to the Part 573 Safety Recall Report:

17 Depending on the circumstances, impaired gas flow could create
 18 excessive internal pressure, which could result in the body of the inflator
 19 rupturing upon deployment. Metal fragments could pass through the air
 20 bag cushion material, which may result in injury or death to vehicle
 21 occupants.

22 152. This recall, however, fails to include all BMW Class Vehicles with
 23 Defective Inflators, depriving Class Members of notice and a remedy, and it fails to
 24 compensate all Class Members, even the ones included in the recall, for the diminished

25 ⁶⁴ "1st Recorded Canadian Fatality from Airbag Inflator Rupture Under Investigation,"
 26 CBC News, Aug. 4, 2016.

27 ⁶⁵ NHTSA, Investigation EA16-003, ODI Opening Resume, Aug. 4, 2016.

28 ⁶⁶ Transport Canada, Recall No. 2018-173, Apr. 11, 2018.

⁶⁷ BMW, Recall No. 17V189, Part 573 Safety Recall Report, Mar. 21, 2017.

⁶⁸ NHTSA, Investigation PE15-027, ARC Response to Information Request,
 Attachment: ARC Automotive 2015 Presentation, July 17, 2015, at PDF 10.

1 value of their vehicles.

2 *v. The 2017 Ford Lot Rupture and Recall*

3 153. On July 31, 2017, Ford was notified that an ARC PH7-120 dual-stage
4 passenger inflator had ruptured during LAT at ARC's facility.⁶⁹ Ford's airbag module
5 was assembled by Takata Corporation, which was subsequently acquired by Key Safety
6 System and later incorporated into Joyson Safety System. According to ARC's
7 presentation to NHTSA, the PH7 inflators were manufactured in four of its facilities:
8 Knoxville, Macedonia, China, and Mexico.⁷⁰

9 154. On August 31, 2017, Ford issued Recall 17V-529 for 650 F-150 and
10 Mustang vehicles equipped with ARC's PH7-120 dual stage passenger inflator which
11 uses the same friction welding process as the DPH-7, CADH and DCADH. According
12 to the Part 573 Safety Recall Report:

13 July 31, 2017, The Tier 1 airbag module supplier notified Ford of an
14 abnormal deployment of a passenger Airbag (PAB) inflator during a Lot
15 Acceptance Test (LAT) conducted at the supplier's engineering facility.
The inflator ruptured during full output at +65 Celsius.

16 155. During August of 2017, the concerns outlined in the Part 573 Safety Recall
17 Report were reviewed by Ford's Critical Concern Review Group ("CCRG") and its
18 preliminary analysis indicates that weld flash from the inflator canister welding process
19 at the Tier 2 inflator supplier may obstruct the gas exhaust port. LAT frequency was
20 increased, and a Design of Experiments was initiated to further evaluate potential
21 factors.

22 156. This recall, however, fails to include all Ford Class Vehicles with Defective
23 Inflators, depriving Class Members of notice and a remedy, and it fails to compensate
24 all Class Members, even the ones included in the recall, for the diminished value of their
25 vehicles.

26
27 ⁶⁹ Ford, Recall No. 17V529, Part 573 Safety Recall Report, Aug. 31, 2017.

28 ⁷⁰ NHTSA, Investigation PE15-027, ARC Response to Information Request,
Attachment: ARC Automotive 2015 Presentation, July 17, 2015, at PDF 10.

1 **vi. The 2017 Chevy Malibu Rupture and Recall**

2 157. On September 22, 2017, an ARC driver inflator ruptured in a 2011
 3 Chevrolet Malibu during a crash in Pennsylvania.⁷¹ GM recalled 1,145 model year 2010-
 4 2011 Chevrolet Malibu vehicles built with inflators from the same lot as the inflator that
 5 ruptured (Recall 19V019). GM did not specify the type of inflator but stated that it was
 6 manufactured in Mexico.⁷² According to ARC's submission to NHTSA, the driver
 7 inflator that is manufactured at ARC's Mexico facility is a CADH (*i.e.*, ADH-C).⁷³ The
 8 airbag module was manufactured by TRW Automotive Holdings Corp., which has since
 9 been acquired by ZF Friedrichshafen AG to form what is commonly referred to as ZF-
 10 TRW.

11 158. According to NHTSA, an ARC passenger hybrid inflator manufactured on
 12 June 1, 2014, ruptured in the field. NHTSA did not specify the make, model, and model
 13 year vehicle or the date of rupture.⁷⁴

14 159. This recall, however, fails to include all GM Class Vehicles with Defective
 15 Inflators, depriving Class Members of notice and a remedy, and it fails to compensate
 16 all Class Members, even the ones included in the recall, for the diminished value of their
 17 vehicles.

18 **vii. The 2021 Chevy Traverse Rupture and Recall**

19 160. On August 15, 2021, a driver in Calumet, Michigan, was killed due to a
 20 rupture of the ARC driver hybrid inflator in her 2015 Chevrolet Traverse. The victim,
 21 who was driving with two of her children as passengers, collided with an oncoming
 22 vehicle that crossed into her lane, and her airbag deployed. According to the police
 23

24 ⁷¹ *McQuaide v. Gen'l Motors LLC*, Pa., Allegheny Co. Ct. Com. Pleas, No. GD-18-
 25 007744, Third Amended Complaint, Jan. 29, 2019.

26 ⁷² Gen'l Motors, Recall No. 19V019, Part 573 Safety Recall Report, Jan. 31, 2019.

27 ⁷³ NHTSA, Investigation PE15-027, ARC Response to Information Request,
 Attachment: ARC Automotive 2015 Presentation, July 17, 2015, at PDF 10.

28 ⁷⁴ *See, e.g.*, NHTSA, Investigation EA16-003, Investigation Response Ltr. to
 Volkswagen Group of Am., Inc., Sept. 14, 2020.

1 investigation:

2 [i]t appeared that the driver's side airbag malfunctioned causing it to
3 detach from the steering column and sent metal fragments into the driver's
4 compartment of the vehicle. The igniter for the front driver's side airbag
5 was found on the passenger side dashboard. There was also metal shrapnel
6 on the driver's side dash, in the instrument cluster and markings on the
7 driver's side roof which appeared to come from the driver's side airbag.⁷⁵

8 161. The police investigation report noted that the autopsy of the victim found
9 parts of the metal airbag inflator lodged in her neck. The other passengers in the victim's
10 vehicle, including an unbelted right front passenger and occupants in the second and
11 third row seats, survived the crash.

12 162. GM sent a contract field investigator to examine the vehicle on September
13 8, 2021, and, on September 14, 2021, another GM field investigator accompanied by the
14 police investigator performed x-rays on the metal shards that were removed during the
15 autopsy. Further inspection of the vehicle and airbag pieces were examined by counsel
16 representing the victim's family, GM, ARC, and Toyoda Gosei (the Tier 1 supplier to
17 GM) on October 27, 2021. The investigation report includes a photograph of the
18 ruptured inflator, which is unrecognizable as an inflator due to the extent of the damage,
19 as depicted below:



28 ⁷⁵ Houghton Co. Sheriff's Off., Incident Report, Aug. 15, 2021.

1 163. GM subsequently issued a recall of 552 model year 2008-2017 Buick
 2 Enclave vehicles and 2013-2017 Chevrolet Traverse vehicles (Recall 21V782).⁷⁶ As
 3 with its previous recall, GM recalled only inflators made from the same lot as the
 4 ruptured inflator that were used either as original equipment or replacement inflators.
 5 GM did not specify the type, stage, or manufacturing location for the inflator.

6 164. This recall, however, fails to include all GM Class Vehicles with Defective
 7 Inflators, depriving Class Members of notice and a remedy, and it fails to compensate
 8 all Class Members, even the ones included in the recall, for the diminished value of their
 9 vehicles.

10 **viii. The Second 2021 Chevy Traverse Rupture and Recall**

11 165. On October 13, 2021, NHTSA confirmed that, just south of Lexington,
 12 Kentucky, there was another rupture of an ARC hybrid driver inflator involving a second
 13 2015 Chevrolet Traverse.⁷⁷ Based on this incident GM issued Recall 22V-246 on April
 14 14, 2022, for 2,687 vehicles including:

- 15 a. 2015 Buick Enclaves (542)
- 16 b. 2015 Chevrolet Traverses (1183)
- 17 c. 2015 GMC Arcadias (962)

18 166. The chronology listed in the Recall 22V-246 Part 573 report states:⁷⁸

19 On November 9, 2021, GM received a claim letter from an attorney
 20 representing the owner of a 2015 model year Chevrolet Traverse that was
 21 involved in a crash. On February 18, 2022, the claimant alleged that the
 front-driver airbag inflator in the vehicle ruptured during the crash.

22 GM was provided an opportunity to inspect the vehicle on March 23, 2022.
 23 GM determined, at that inspection, that the front driver airbag inflator in
 the subject vehicle ruptured during the crash deployment.

24 On April 7, 2022, GM's Safety and Field Action Decision Authority
 25 decided to conduct a safety recall on all front driver airbag modules

26 ⁷⁶ Gen. Motors, Recall No. 21V782, Part 573 Safety Recall Report, Oct. 7, 2021.

27 ⁷⁷ *Second driver killed by airbag inflator from Tennessee's ARC*, Autoblog, Oct. 14,
 2021, <https://www.autoblog.com/2021/10/14/arc-airbag-inflator-death-gm-nhtsa-investigation/> (last accessed July 20, 2022).

28 ⁷⁸ GM, Recall No. 22V246, Part 573 Safety Recall Report, Apr. 14, 2022.

1 containing an inflator from the same manufacturing lot as the inflator under
 2 investigation. GM is continuing to investigate this incident. GM's
 investigation has not identified another rupture allegation involving the
 vehicles in this recall population.

3 167. This recall, however, fails to include all GM Class Vehicles with Defective
 4 Inflators, depriving Class Members of notice and a remedy, and it fails to compensate
 5 all Class Members, even the ones included in the recall, for the diminished value of their
 6 vehicles.

7 *ix. The 2021 Audi A3 Rupture and Recall*

8 168. On December 18, 2021, the ARC passenger hybrid inflator in a 2016 Audi
 9 A3 ruptured during a crash in California, causing severe laceration injuries to the front
 10 seat passenger. An individual personal injury case was filed and remains pending.⁷⁹ In
 11 July 2022, VW recalled 1,216 vehicles, noting that although it had not yet determined a
 12 root cause, it was only recalling inflators from the same "suspect batch."⁸⁰ According to
 13 photos of an exemplar airbag installed in the 2015-2017 Audi A3, the passenger inflators
 14 are ARC PH7 hybrid inflators manufactured in Macedonia.⁸¹

15 169. This recall, however, fails to include all Audi Class Vehicles with Defective
 16 Inflators, depriving Class Members of notice and a remedy, and it fails to compensate
 17 all Class Members, even the ones included in the recall, for the diminished value of their
 18 vehicles.

19 *x. The 2023 GM Rupture and Recall*

20 170. On March 22, 2023, a driver side inflator in a 2017 Chevrolet Traverse
 21 ruptured in Michigan. This module was produced by Toyoda Gosei. On May 10, 2023,
 22 GM instituted a recall (NHTSA No. 23V334), stating that it:

23 decided that a defect which relates to motor vehicle safety exists in certain
 24 2014-2017 model year Buick Enclave, Chevrolet Traverse, and GMC

25
 26 ⁷⁹ *Barbone v. Khijniak*, Cal., Orange County Super. Ct., No. 30-2022-01254070-CU-
 PA-CJC, Apr. 8, 2022.

27 ⁸⁰ VW, Recall No. 22V543 Part 573 Safety Recall Report, July 27, 2022.

28 ⁸¹ eBay, Audi A3 Right Passenger Dash Bag SRS Inflator Stk 21262 (last accessed
 Mar. 3, 2022).

1 Acadia vehicles. In these vehicles, the front-driver airbag inflator may
2 contain a supplier manufacturing defect that may result in inflator rupture
during deployment.

3 Description of the Safety Risk: An inflator rupture may cause metal
4 fragments to pass through the airbag and into the vehicle interior, which
may result in injury or death to vehicle occupants.

5 Description of Remedy Program: Dealers will replace the front-driver
6 airbag module.⁸²

7 171. GM concluded that the “MC” variant inflator in these vehicles may rupture
8 and “cause metal fragments to pass through the airbag and into the vehicle interior,
9 which may result in injury or death to vehicle occupants.” GM committed that once the
10 parts are available, its dealers will replace the Defective Inflators in the front driver side
11 but specified that only “MC” variant inflators were included. This recall included
12 994,000 vehicles.

13 172. This recall, however, fails to include all GM Class Vehicles with Defective
14 Inflators, depriving Class Members of notice and a remedy, and it fails to compensate
15 all Class Members, even the ones included in the recall, for the diminished value of their
16 vehicles.

17 *xi. International Events*

18 173. In addition to the previously discussed July 2016 driver side air bag inflator
19 rupture in a 2009 Hyundai Elantra in Canada, on October 16, 2017, a passenger side
20 airbag ruptured in a 2015 Volkswagen Golf in Turkey. The Joyson Defendants produced
21 the airbag module, which also contained a Defective inflator manufactured in ARC’s
22 Knoxville, Tennessee facility.

23 *xii. Recall Summary*

24 174. The following chart summarizes the lot-based recalls, which cover only 1.2
25 million of the 67 million affected vehicles.

26 ///

27 ///

28 ⁸² GM, Recall No. 22V334, Product Safety Recall Report, May 10, 2023.

Recall	Date	Manufacturer	Affected Vehicles	Population
17V-189	03/21/2017	BMW	2017 BMW X5 sDrive35i, X5 xDrive35i, X5 xDrive50i 2017 BMW X5 xDrive 35d 2017 BMW X5 xDrive40e	36
17V-529	08/31/2017	Ford	2017 Ford F150 2017 Ford Mustang	650
19V-019	01/31/2019	General Motors	2010-2011 Chevrolet Malibu	1,145
21V-782	10/21/2021	General Motors	2008-2017 Buick Enclave 2013-2017 Chevrolet Traverse	552
22V-246	04/14/2022	General Motors	2015 Buick Enclave 2015 Chevrolet Traverse	2,687
22V-543	07/27/2022	Volkswagen	2016 Audi TT Roadster 2016 Audi TT Coupe 2016 Audi S3 Sedan 2016 Audi R8 Coupe 2016 Audi A3 Sedan 2016 Audi A3 e-tron 2016 Audi A3 Cabriolet 2016 Volkswagen Golf Sportwagen 2016 Volkswagen Golf R 2016 Volkswagen Golf GTI 2016 Volkswagen Golf A7 2016 Volkswagen E Golf	1,216
23V334	5/10/23	General Motors	2014-2017 Buick Enclave 2014-2017 Chevrolet Traverse 2014-2017 GMC Acadia	994,000
			Total Recall Population	1,286,000

CLASS ACTION COMPLAINT

1 175. As evidenced above, the ARC hybrid inflators that have ruptured thus far
2 vary in type, stage, and location of manufacture. Despite knowledge of the Defective
3 Inflators and the growing number of ruptures, ARC has not recalled their demonstrably
4 unsafe Defective Inflators, the Airbag Module Defendant and Airbag Module Suppliers
5 did not recall their air bag modules containing the Defective Inflators, and the
6 Automaker Defendants did not recall all their vehicles fitted with the Defective Inflators.
7 As stated above, the Automaker Defendants have issued only very limited recalls
8 following actual ruptures, a pattern that follows the devastating Takata airbag inflator
9 recalls that went on for many years and needlessly endangered vehicle occupants and
10 resulted in injuries and deaths. Instead of proactively taking steps to ensure their vehicles
11 are safe as they are duty bound to do, the Automaker Defendants' response has been
12 reactive and wholly inadequate.

13 176. As of May 31, 2023, there has been limited public disclosure of the data
14 requested by NHTSA from automakers or ARC. The original requests for information
15 surrounding the ARC inflator ruptures are dated August 4, 2016. The most recent
16 documents provided to the public on the NHTSA website are dated from December 2022
17 and only include requests for additional information.

18 177. According to a memo dated April 13, 2021, NHTSA states:

19 The manufacturer's response to the Office of Defect Investigation
20 (ODI)'s information request for this investigation is being reviewed and
21 redacted to remove all personally identifiable information (PII) as
22 required by federal law. These responses are usually complex, contain a
23 large volume of documents, and require additional time for review and
24 redaction. The public version of the response will be posted to this
25 investigation file when available. While ODI's investigation is ongoing,
26 we recommend that you periodically review this investigation file for
27 additional documents and updates.

28 178. Over two years have passed since NHTSA claimed the public version of
the documents would be made available and as of May 31, 2023, only 100 documents
have been made public, most of which are NHTSA's requests, in stark contrast to ARC's
representation that they turned over 2 tera-bytes of material during the investigation.

179. There are only two approaches available: (1) Recall all ARC hybrid toroidal inflators OR (2) wait until another field rupture takes place and recall the inflators of the same lot. The Defendants' "Wait and See" approach places drivers and passengers of vehicles that utilize an ARC hybrid toroidal inflator at risk. The two drivers of the 2015 Chevrolet Traverses involved in the August and October 2021 accidents were the latest guinea pigs the Defendants used to identify two defective lots of ARC inflators and they will not be the last unless all ARC Defective Inflators are recalled.

180. In fact, in the October 4, 2016, letter from NHTSA to ARC's Chief Executive Officer, ARC's position on the seriousness of the matter was called out quite clearly by Michael Brown, Acting Director Offices of Defect Investigation:⁸³

ARC's response to [NHTSA's] investigation to date does not demonstrate the behavior that NHTSA expects of manufacturers, much less manufacturers of vital safety components utilized in vehicles across the globe. To the contrary, ARC's behavior has demonstrated a lack of cognizance regarding the seriousness of this investigation and the underlying issues.

181. The Class Vehicles are not safe to drive. Due to Defendants' failures, Plaintiff and Class Members are left with poor options: to be without the use of a vehicle; purchase, lease, or rent a new vehicle until Defendants first issue and then complete the recall; or use a vehicle with a dangerous or disabled airbag over an extended period of time. These are all, obviously, entirely unacceptable alternatives.

F. The Class Vehicles

182. Attached as Exhibit E is a table that identifies, to the best of Plaintiffs' knowledge, and without the benefit of discovery, the Class Vehicles equipped with ARC's Defective Inflators by make, model, and model year.

G. Defendants' Concealment of the Defect

183. Like ordinary consumers, Plaintiffs reasonably believed when purchasing their Class Vehicles that the vehicles were equipped with safe airbags that did not have

⁸³ NHTSA, EA16-003, Ltr. to ARC, Aug. 9, 2016.

1 a dangerous propensity to shoot shrapnel into their faces, necks, torsos, and limbs or
2 those of other vehicle occupants. Accordingly, the ordinary reasonable consumer would
3 have considered the Inflator Defect to constitute an important and material part of
4 deciding whether to spend money to purchase or lease a Class Vehicle.

5 184. Defendants were aware that consumers did not expect their airbags to be
6 defective and had readily available means to convey that information to Plaintiffs and
7 the Class—including through on-vehicle labeling, stickers, and placards, through owner
8 manuals, brochures, and pamphlets, through advertising for the Class Vehicles, and
9 through full and complete disclosure by way of recalls. Plaintiffs and the Class were
10 exposed to such types of informational materials prior to purchasing or leasing their
11 Class Vehicles, at the time of purchase or lease (through interactions with Automaker
12 Defendants' sales employees and other agents), and/or every day they sat in their Class
13 Vehicles. Indeed, Defendants had one obvious location to convey a warning about an
14 airbag defect, on the steering wheel itself, an item the driver cannot help but see before
15 ever driving the car.

16 185. Defendants nonetheless chose not to warn about or disclose the defect at
17 any point in time. The Defendants' concealment succeeded because each entity in the
18 chain between ARC and automakers remained silent about the defect—resulting in the
19 public, prospective purchasers and lessees, automobile dealerships, automobile retailers,
20 and automotive repair and service facilities remaining unaware of the Inflator Defect,
21 which successfully prevented any warning to Plaintiffs and the Class. The foreseeable
22 and intended effect of the Defendants' concerted silence was that they all continued to
23 profit from the manufacture, marketing, sale, service, and use of the Defective Inflators
24 and Class Vehicles equipped with those inflators—with consumers bearing all the safety
25 risks and suffering economic losses as a result.

26 186. Defendants intended to mislead and in fact misled reasonable consumers—
27 including Plaintiffs and the Class—through their concealment of the Inflator Defect.
28 Defendants did so with the intent to generate and increase sales of the Class Vehicles,

1 thereby increasing Defendants' relative share of the automotive components and
2 automobile markets.

3 **H. Economic Injury to the Class**

4 187. The Class Vehicles were worth less than the prices the Class Members paid
5 for them. Neither the market nor any reasonable consumer would ignore the material
6 danger involving an airbag shooting metal shrapnel into the driver and passengers when
7 assessing the value of an automobile and whether to purchase or lease it. Consequently,
8 Plaintiffs paid more for their Class Vehicles than they otherwise would have because of
9 the Inflator Defect, or they purchased vehicles that they otherwise would not have
10 purchased.

11 188. By concealing the Inflator Defect, Defendants distorted and misrepresented
12 the true value of every Class Vehicle. Every Plaintiff and Class member received a Class
13 Vehicle with different characteristics and of different and substantially lesser value than
14 they reasonably believed they were receiving. Accordingly, Plaintiffs and the Class did
15 not realize the benefit of their bargain in purchasing and leasing the Class Vehicles, and
16 their expectations as ordinary reasonable consumers were not met.

17 189. For these reasons, every Class Vehicle was worth less than what Plaintiffs
18 and Class Members paid for them.

19 **IV. TOLLING OF THE STATUTE OF LIMITATIONS**

20 190. Plaintiffs and the Class had no knowledge of the misconduct and
21 concealment alleged herein, or of facts sufficient to place them on inquiry notice of the
22 claims set forth herein, until August 2020 when the NHTSA expanded its Engineering
23 Analysis to include "toroidal shaped hybrid air bag inflators, both passenger and driver
24 side" and requested additional information from ARC specifically regarding the PH7
25 toroidal shaped hybrid front passenger airbag inflator "to facilitate its investigation of
26 the potential risk of deployment-related field rupture."

27 191. Plaintiffs and Class Members are consumers who purchased or leased Class
28 Vehicles. No information in the public domain was available to the Plaintiffs and the

1 members of the Class prior to August 2020 that revealed sufficient information to
 2 suggest that Defendants were involved in the misconduct or concealment alleged herein.
 3 Therefore, the statute of limitations did not begin to run because Plaintiffs and the Class
 4 did not and could not discover their claims.

5 192. In the alternative, the statute of limitations did not begin to run because the
 6 Defendants fraudulently concealed the Defective Inflators until at the earliest, August
 7 2020. On information and belief, Defendant ARC and the Vehicle Manufacturer
 8 Defendants have known of the defects in their airbags since at least 2015. Defendants
 9 knew of the defects well before the Plaintiffs and many of the Class Members purchased
 10 the Class Vehicles, and have concealed from or failed to notify Plaintiffs, Class
 11 Members, and the public of the full and complete nature of the Airbag Defect.

12 193. Plaintiffs and the Class had no means of obtaining any facts or information
 13 concerning any aspect of ARC's dealings with the Airbag Module Defendant, Airbag
 14 Module Suppliers, and Automaker Defendants, much less the fact that they had engaged
 15 in the misconduct and concealment alleged herein. For these reasons, the statute of
 16 limitations as to Plaintiffs' and the Class's claims did not begin to run and has been
 17 tolled with respect to the claims that Plaintiffs and Class Members have alleged in this
 18 Complaint.

19 **V. CLASS ACTION ALLEGATIONS**

20 194. Unless otherwise stated, the term "Class" refers jointly and severally to the
 21 Class and to each of the State Subclasses. Excluded from the Class are: (a) each
 22 Defendant and its board members, executive-level officers, attorneys, and immediate
 23 family members of any such persons; (b) the Court, the Court's immediate family, and
 24 the Court staff; (c) any person who asserts a personal injury or wrongful death claim
 25 caused by the Defective Inflator; (d) Class counsel, and (e) any person who timely and
 26 properly excludes himself or herself from the Class.

27 **A. Nationwide Class**

28 195. Pursuant to Federal Rule of Civil Procedure ("Rules") 23(a), 23(b)(2), and

23(b)(3), Plaintiffs bring this action on behalf of a proposed Class defined as follows: “All consumers in the United States who purchased, currently own, lease, or leased a Class Vehicle that contains a driver or passenger side inflator manufactured by ARC between 2001 and 2018.”⁸⁴

B. State Subclasses

196. In addition and/or alternatively, the Plaintiffs bring a separate state subclass under the laws of their respective states. The State Subclasses consist of: “All consumers in their state of residence who purchased, currently own, lease, or leased a Class Vehicle that contains a driver or passenger side inflator manufactured by ARC between 2001 and 2018.” The State Subclasses do not include: (a) each Defendant and its board members, executive-level officers, attorneys, and immediate family members of any such persons; (b) the Court, the Court’s immediate family, and the Court staff; (c) any person who asserts a personal injury or wrongful death claim caused by the Defective Inflator; (d) Class counsel, and (e) any person who timely and properly excludes himself or herself from the Class.

197. Consistent with Fed. R. Civ. P. 23(c)(5) which sanctions the creation of subclasses “[w]hen appropriate,” Plaintiffs reserve their right to modify the Class and the State Subclasses as discovery progresses and at the class certification stage.

C. Numerosity (Fed. R. Civ. P. 23(a)(1))

198. The members the proposed Class(es) are so numerous and geographically dispersed that individual joinder of all Class Members is impracticable. Although the precise number of Class Members is unknown to Plaintiffs, on information and belief, the Class would easily number in the millions. Millions of Class Vehicles spanning nearly 20 model years potentially contain Defective Inflators. The Class and/or classes

⁸⁴ At this early stage and without the benefit of discovery, Plaintiffs cannot determine with certainty each vehicle by make, model, and model year equipped with the Defective Inflators but have included those about which they are reasonably confident. Plaintiffs may amend their pleadings to add vehicles if they are identified in the discovery process.

1 are thus comprised of numerous, geographically dispersed members who cannot be
2 practicably joined.

3 199. The true size of the Class and/or Classes are ascertainable through the
4 Automaker Defendants' business records and by other means.

5 **D. Typicality (Fed. R. Civ. P. 23(a)(3))**

6 200. Plaintiffs' claims are typical of other Class Members' claims because
7 Plaintiffs and the Class and/or State Subclasses all purchased or leased a Class Vehicle
8 containing Defective Inflators. All received less than the full value Class Vehicles due
9 to the Inflator Defect and Automaker Defendants' representations and/or Defendants'
10 omissions. Class Members, like Plaintiffs, would not have purchased the Class Vehicles
11 or paid as much had Defendants not misrepresented the safety of the Class Vehicles or
12 concealed and omitted to disclose the Inflator Defect, which was unknown to Plaintiffs
13 and Class Members. And Plaintiffs and Class Members were exposed to the same or
14 substantially similar misrepresentations and to the same omissions—namely,
15 concealment of the Inflator Defect. In short, the claims all arise from a single course of
16 conduct and each Class member would individually make similar legal and factual
17 arguments to establish Defendants' liability.

18 201. There are no defenses available that are unique to the Plaintiffs.

19 **E. Commonality and Predominance (Fed. R. Civ. P. 23(a)(2) & 23(b)(3))**

20 202. Plaintiffs and the Class are united by a community of interest in obtaining
21 appropriate remedies, including injunctive relief, repair, or replacement of the Class
22 Vehicles or Defective Inflators, restitution, damages, and other available relief designed
23 to redress Defendants' wrongful conduct. This action involves questions of law and fact
24 that are common to the Class(es) that are susceptible to common answers and that
25 predominate over any individual questions specific to any Class Members. These
26 include:

- 27 a. Whether the ARC airbag inflators are defective;
- 28 b. Whether the Class Vehicles are equipped with Defective Inflators;

- c. Whether Defective Inflators in the Class Vehicles pose an unreasonable safety risk or are otherwise material to reasonable consumers;
- d. Whether an ordinary reasonable consumer would have purchased or leased a Class Vehicle had he or she known of the Defective Inflators;
- e. Whether an ordinary reasonable consumer would have paid less money to purchase or lease a Class Vehicle had he or she known of the Defective Inflators;
- f. Whether the Class and Subclass members were denied the benefit of their bargain as a result of the undisclosed defect;
- g. Whether Defendants had actual or constructive knowledge of the defect;
- h. When Defendants first had actual or constructive knowledge of the defect;
- i. Whether Defendants had a duty to disclose the Defective Inflators before or at the time Plaintiffs and the Class(es) purchased or leased their respective Class Vehicles;
- j. Whether Defendants had and have an ongoing duty to disclose the defect;
- k. Whether Defendants breached their express and implied warranties for the Class Vehicles and Defective Inflators;
- l. Whether Defendants violated governing laws prohibiting unfair and deceptive trade practices and other similar consumer protection laws of Plaintiffs' and the Class Members' respective jurisdictions;
- m. Whether Defendants breached other duties or violated other applicable laws by their representations and/or by their omissions, including concealment of the Defective Inflators;
- n. Whether Defendants breached their obligations to provide timely

1 repairs for the Class Vehicles;

2 o. Whether Defendants should be declared legally and financially
3 responsible for notifying the Class and Subclass members of the true
4 and complete nature and extent of the Defective Inflators;

5 p. Whether Defendants should be declared legally and financially
6 responsible for notifying Class and Subclass Members of their right
7 to reimbursement from Defendants for the costs incurred in
8 diagnosing, repairing, and replacing the Defective Inflators in the
9 Class Vehicles;

10 q. Whether and to what extent Defendants are obligated to pay actual
11 and consequential damages to the Class and Subclass Members as a
12 result of the Defective Inflators;

13 r. Whether Defendants fraudulently concealed the Defective Inflators;

14 s. Whether Defendants misconduct was knowing and willful;

15 t. Whether Defendants should be obligated to pay punitive damages in
16 connection with the claims brought in this action, and if so, the
17 amount of those damages;

18 u. Whether Defendants were unjustly enriched by receiving Plaintiffs'
19 and the Class Members' money for the Class Vehicles;

20 v. Whether Defendants should be ordered to disgorge all or part of the
21 monies received from Plaintiffs and the Class in exchange for the
22 Class Vehicles;

23 w. Whether Plaintiffs and the Class are entitled to damages, injunctive
24 relief, restitution, or other relief sought in this Complaint; and

25 x. The amounts to which Plaintiffs and the Class are entitled.

26 203. The factual and legal issues identified above (a) remain common to the
27 Class, (b) arise from a common course of conduct and systemic policy decisions made
28 by Defendants, (c) predominate in number and importance over questions that may not

1 be common to the class, and (d) preclude neither class-wide calculation of damages nor
 2 the methodological determination of how such damages should be allocated among
 3 Class Members.

4 **F. Adequacy of Representation (Fed. R. Civ. P. 23(a)(4))**

5 204. Plaintiffs are adequate Class representatives because their interests do not
 6 conflict with the interests of the Class Members. Plaintiffs commit to protecting the
 7 interests of the Class(es) without exercising personal interest or otherwise acting in a
 8 manner inconsistent with the best interests of the Class(es) generally. Plaintiffs have
 9 retained attorneys with exceptional experience in complex litigation, including extensive
 10 class action experience and experience in handling consumer protection cases and
 11 product liability cases, including automobile defect claims. The firms and lead counsel
 12 for the firms retained by Plaintiffs also have substantial trial experience, individually
 13 and collectively. Plaintiffs and their attorneys will responsibly, ethically, and vigorously
 14 advocate on behalf of the Class(es) and Plaintiffs' counsel have ample resources to do
 15 so.

16 **G. Ascertainability**

17 205. The Defective Inflators manufactured by ARC are identifiable, discrete
 18 physical products that remain essentially unchanged when incorporated into a Class
 19 Vehicle. As a result, the Defective Inflators follow a traceable physical chain of
 20 distribution from ARC, to the Airbag Module Defendant or Airbag Module Suppliers,
 21 to Automaker Defendants, to automobile dealerships and retailers, and then to Plaintiffs
 22 and the Class.

23 206. Defective Inflators that are incorporated into the assembly contain
 24 markings identifying ARC as the manufacturer on a small label on the component.
 25 Defective Inflators can therefore be physically traced through the supply chain.

26 207. The identities of Class Members are ascertainable from various sources
 27 including Defendants' production and distribution records, Polk automotive data,
 28 vehicle ownership records, government ownership records, or via simple notice by

1 publication.

2 **H. Superiority**

3 208. The proposed class action is superior to the other means available to the
4 Class to obtain relief. The damages suffered by individual Class Members are relatively
5 small compared to the burden and expense of individual litigation of the claims
6 described here against Defendants so that making the class whole in the absence of a
7 class action is unlikely and impracticable.

8 209. This means Class Members have relatively less interest in individually
9 controlling the prosecution of separate actions and it cannot be said that the interests of
10 individuals pursuing individual cases in conducting separate lawsuits is so strong as to
11 call for denial of a class action. Without class certification, the prosecution of separate
12 consumer actions by individual Class Members would be impracticable and financially
13 difficult and, therefore, unlikely.

14 210. Denial of class treatment runs the risk of establishing incompatible
15 standards of conduct for Defendants, discouraging the prosecution of meritorious but
16 small claims, and it may result in adjudications which would be dispositive of the
17 interests of other Class Members who are not parties to the adjudication, or otherwise
18 substantially impair the ability of Class Members (and Defendants) to protect their rights
19 and interests.

20 211. Defendants have no facially plausible interest in defending against separate,
21 geographically dispersed claims and, in fact, that would be more burdensome to
22 Defendants than defending against all potential claims in a single forum and proceeding.
23 Likewise, the judicial system has no interest in burdening numerous courts when the
24 claims of this highly cohesive class can be fairly and efficiently concentrated and
25 managed by this Court. Individualized actions would run the risk of creating inconsistent
26 or contradictory judgments arising from the same set of facts and would increase the
27 likely delay and expense to all parties involved and to the courts, including this Court.
28 By proceeding as a class action, the claims at issue can be managed efficiently through

1 economies of scale.

2 212. Additionally, the claims are manageable, each Subclass claim is governed
3 by one state's law and those laws are consonant with one another. Defendants'
4 misconduct impacts all Class Members, whose losses are capable of calculation on a
5 class-wide or subclass-wide basis.

6 213. Ultimately, the class action procedure is superior to other methods of
7 adjudicating the Plaintiffs and Class Members' claims. This is precisely why class
8 actions exist—class treatment facilitates the fair, uniform and efficient adjudication of
9 claims, as it would here, and it promotes judicial economy while avoiding the undue
10 financial, administrative and procedural burdens that necessarily would result from a
11 multiplicity of individual actions.

12 **VI. REALLEGATION AND INCORPORATION BY REFERENCE**

13 214. Plaintiff realleges and incorporates by reference each of the preceding
14 paragraphs and allegations of this Complaint, including the Introduction, all Factual
15 Allegations, Tolling Allegations, and Class Action Allegations, as though fully set forth
16 in each of the Claims for Relief asserted on behalf of the Nationwide Class and the State
17 Subclasses in Volume II of the Complaint.